

**1 SECTION 1. SHORT TITLE.**

**2** This Act may be cited as the “Energy Policy Act of  
**3** 2002”.

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# **DIVISION A—RELIABLE AND DIVERSE POWER GENERATION AND TRANSMISSION TITLE I—REGIONAL COORDINATION**

## **SEC. 101. POLICY ON REGIONAL COORDINATION.**

(a) STATEMENT OF POLICY.—It is the policy of the Federal Government to encourage States to coordinate, on a regional basis, State energy policies to provide reliable and affordable energy services to the public while minimizing the impact of providing energy services on communities and the environment.

(b) DEFINITION OF ENERGY SERVICES.—For purposes of this section, the term “energy services” means—

(1) the generation or transmission of electric energy,

1           (2) the transportation, storage, and distribution  
2       of crude oil, residual fuel oil, refined petroleum prod-  
3       uct, or natural gas, or

4           (3) the reduction in load through increased effi-  
5       ciency, conservation, or load control measures.

6   **SEC. 102. FEDERAL SUPPORT FOR REGIONAL COORDINA-**  
7                           **TION.**

8       (a) TECHNICAL ASSISTANCE.—The Secretary of En-  
9       ergy shall provide technical assistance to States and re-  
10      gional organizations formed by two or more States to as-  
11      sist them in coordinating their energy policies on a re-  
12      gional basis. Such technical assistance may include assist-  
13      ance in—

14           (1) assessing future supply availability and de-  
15      mand requirements,

16           (2) planning and siting additional energy infra-  
17      structure, including generating facilities, electric  
18      transmission facilities, pipelines, refineries, and dis-  
19      tributed generation facilities to meet regional needs,

20           (3) identifying and resolving problems in dis-  
21      tribution networks,

22           (4) developing plans to respond to surge de-  
23      mand or emergency needs, and

24           (5) developing renewable energy, energy effi-  
25      ciency, conservation, and load control programs.

1       (b) ANNUAL CONFERENCE ON REGIONAL ENERGY  
2 COORDINATION.—

3           (1) ANNUAL CONFERENCE.—The Secretary of  
4 Energy shall convene an annual conference to pro-  
5 mote regional coordination on energy policy and in-  
6 frastructure issues.

7           (2) PARTICIPATION.—The Secretary of Energy  
8 shall invite appropriate representatives of federal,  
9 state, and regional energy organizations, and other  
10 interested parties.

11          (3) STATE AND FEDERAL AGENCY COOPERA-  
12 TION.—The Secretary of Energy shall consult and  
13 cooperate with State and regional energy organiza-  
14 tions, the Secretary of the Interior, the Secretary of  
15 Agriculture, the Secretary of Commerce, the Sec-  
16 retary of the Treasury, the Chairman of the Federal  
17 Energy Regulatory Commission, the Administrator  
18 of the Environmental Protection Agency, and the  
19 Chairman of the Council on Environmental Quality  
20 in the planning and conduct of the conference.

21          (4) AGENDA.—The Secretary of Energy, in con-  
22 sultation with the officials identified in paragraph  
23 (3) and participants identified in paragraph (2),  
24 shall establish an agenda for each conference that

1 promotes regional coordination on energy policy and  
2 infrastructure issues.

3 (5) RECOMMENDATIONS.—Not later than 60  
4 days after the conclusion of each annual conference,  
5 the Secretary of Energy shall report to the President  
6 and the Congress recommendations arising out of  
7 the conference that may improve—

8 (A) regional coordination on energy policy  
9 and infrastructure issues, and

10 (B) federal support for regional coordina-  
11 tion.

12 **TITLE II—ELECTRICITY**  
13 **Subtitle A—Amendments to the**  
14 **Federal Power Act**

15 **SEC. 201. DEFINITIONS.**

16 (a) DEFINITION OF ELECTRIC UTILITY.—Section  
17 3(22) of the Federal Power Act (16 U.S.C. 796(22)) is  
18 amended to read as follows:

19 “(22) ‘electric utility’ means any person or Fed-  
20 eral or State agency (including any municipality)  
21 that sells electric energy; such term includes the  
22 Tennessee Valley Authority and each Federal power  
23 marketing agency.”.

1 (b) DEFINITION OF TRANSMITTING UTILITY.—Sec-  
2 tion 3(23) of the Federal Power Act (16 U.S.C. 796(23))  
3 is amended to read as follows:

4 “(23) TRANSMITTING UTILITY.—The term  
5 ‘transmitting utility’ means an entity (including any  
6 entity described in section 201(f)) that owns or oper-  
7 ates facilities used for the transmission of electric  
8 energy in—

9 “(A) interstate commerce; or

10 “(B) for the sale of electric energy at  
11 wholesale.”.

12 **SEC. 202. ELECTRIC UTILITY MERGERS.**

13 Section 203(a) of the Federal Power Act (16 U.S.C.  
14 824b) is amended to read as follows:

15 “(a)(1) No public utility shall, without first having  
16 secured an order of the Commission authorizing it to do  
17 so—

18 “(A) sell, lease, or otherwise dispose of the  
19 whole of its facilities subject to the jurisdiction of  
20 the Commission, or any part thereof of a value in  
21 excess of \$1,000,000,

22 “(B) merge or consolidate, directly or indi-  
23 rectly, such facilities or any part thereof with the fa-  
24 cilities of any other person, by any means whatso-  
25 ever,

1           “(C) purchase, acquire, or take any security of  
2           any other public utility, or

3           “(D) purchase, lease, or otherwise acquire exist-  
4           ing facilities for the generation of electric energy or  
5           for the production or transportation of natural gas.

6           “(2) No holding company in a holding company sys-  
7           tem that includes a transmitting utility or an electric util-  
8           ity company shall purchase, acquire, or take any security  
9           of, or, by any means whatsoever, directly or indirectly,  
10          merge or consolidate with a transmitting utility, an elec-  
11          tric utility company, a gas utility company, or a holding  
12          company in a holding company system that includes a  
13          transmitting utility, an electric utility company, or a gas  
14          utility company, without first having secured an order of  
15          the Commission authorizing it to do so.

16          “(3) Upon application for such approval the Commis-  
17          sion shall give reasonable notice in writing to the Governor  
18          and State commission of each of the States in which the  
19          physical property affected, or any part thereof, is situated,  
20          and to such other persons as it may deem advisable.

21          “(4) After notice and opportunity for hearing, if the  
22          Commission finds that the proposed disposition, consolida-  
23          tion, acquisition, or control will be consistent with the pub-  
24          lic interest, it shall approve the same.

1       “(5) For purposes of this subsection, the terms ‘elec-  
2   tric utility company’, ‘gas utility company’, ‘holding com-  
3   pany’, and ‘holding company system’ have the meaning  
4   given those terms in the Public Utility Holding Company  
5   Act of 2002.

6       “(6) Notwithstanding section 201(b)(1), facilities  
7   used for the generation of electric energy shall be subject  
8   to the jurisdiction of the Commission for purposes of this  
9   section.”.

10   **SEC. 203. MARKET-BASED RATES.**

11       (a) APPROVAL OF MARKET-BASED RATES.—Section  
12   205 of the Federal Power Act (16 U.S.C. 824d) is amend-  
13   ed by adding at the end the following:

14       “(h) The Commission may determine whether a mar-  
15   ket-based rate for the sale of electric energy subject to  
16   the jurisdiction of the Commission is just and reasonable  
17   and not unduly discriminatory or preferential. In making  
18   such determination, the Commission shall consider—

19               “(1) whether the seller and its affiliates have,  
20               or have adequately mitigated, market power in the  
21               generation and transmission of electric energy;

22               “(2) whether the sale is made in a competitive  
23               market;

1           “(3) whether market mechanisms, such as  
2           power exchanges and bid auctions, function ade-  
3           quately;

4           “(4) the effect of demand response mechanisms;

5           “(5) the effect of mechanisms or requirements  
6           intended to ensure adequate reserve margins; and

7           “(6) other such considerations as the Commis-  
8           sion may deem to be appropriate and in the public  
9           interest.”.

10          (b) REVOCATION OF MARKET-BASED RATES.—Sec-  
11          tion 206 of the Federal Power Act (16 U.S.C. 824e) is  
12          amended by adding at the end the following:

13          “(f) Whenever the Commission, after a hearing had  
14          upon its own motion or upon complaint, finds that a rate  
15          charged by a public utility authorized to charge a market-  
16          based rate under section 205 is unjust, unreasonable, un-  
17          duly discriminatory or preferential, the Commission shall  
18          determine the just and reasonable rate and fix the same  
19          by order in accordance with this section, or order such  
20          other action as will, in the judgment of the Commission,  
21          adequately ensure a just and reasonable market-based  
22          rate.”.

23          **SEC. 204. REFUND EFFECTIVE DATE.**

24          Section 206(b) of the Federal Power Act (16 U.S.C.  
25          824e(b)) is amended by—



1 (1) striking “60 days after the filing of such  
2 complaint nor later than 5 months after the expira-  
3 tion of such 60-day period” in the second sentence  
4 and inserting “on which the complaint is filed”; and

5 (2) striking “60 days after the publication by  
6 the Commission of notice of its intention to initiate  
7 such proceeding nor later than 5 months after the  
8 expiration of such 60-day period” in the third sen-  
9 tence and inserting “on which the Commission pub-  
10 lishes notice of its intention to initiate such pro-  
11 ceeding”.

12 **SEC. 205. TRANSMISSION INTERCONNECTIONS.**

13 Section 210 of the Federal Power Act (16 U.S.C.  
14 824i) is amended to read as follows:

15 “TRANSMISSION INTERCONNECTION AUTHORITY

16 “SEC. 210. (a)(1) The Commission shall, by rule, es-  
17 tablish technical standards and procedures for the inter-  
18 connection of facilities used for the generation of electric  
19 energy with facilities used for the transmission of electric  
20 energy in interstate commerce. The rule shall provide—

21 “(A) criteria to ensure that an interconnection  
22 will not unreasonably impair the reliability of the  
23 transmission system; and

24 “(B) criteria for the apportionment or reim-  
25 bursement of the costs of making the interconnec-  
26 tion.

1       “(2) Notwithstanding section 201(f), a transmitting  
2 utility shall interconnect its transmission facilities with the  
3 generation facilities of a power producer upon the applica-  
4 tion of the power producer if the power producer complies  
5 with the requirements of the rule.

6       “(b) Upon the application of a power producer or its  
7 own motion, the Commission may, after giving notice and  
8 an opportunity for a hearing to any entity whose interest  
9 may be affected, issue an order requiring—

10           “(1) the physical connection of facilities used  
11 for the generation of electric energy with facilities  
12 used for the transmission of electric energy in inter-  
13 state commerce;

14           “(2) such action as may be necessary to make  
15 effective any such physical connection;

16           “(3) such sale or exchange of electric energy or  
17 other coordination, as may be necessary to carry out  
18 the purposes of such order; or

19           “(4) such increase in transmission capacity as  
20 may be necessary to carry out the purposes of such  
21 order.

22       “(c) As used in this section, the term ‘power pro-  
23 ducer’ means an entity that owns or operates a facility  
24 used for the generation of electric energy.”.

1 **SEC. 206. OPEN ACCESS TRANSMISSION BY CERTAIN UTILI-**  
2 **TIES.**

3 Part II of the Federal Power Act is further amended  
4 by inserting after section 211 the following:

5 “OPEN ACCESS BY UNREGULATED TRANSMITTING  
6 UTILITIES

7 “SEC. 211A. (1) Subject to section 212(h), the Com-  
8 mission may, by rule or order, require an unregulated  
9 transmitting utility to provide transmission services—

10 “(A) at rates that are comparable to those that  
11 the unregulated transmitting utility charges itself,  
12 and

13 “(B) on terms and conditions (not relating to  
14 rates) that are comparable to those under Commis-  
15 sion rules that require public utilities to offer open  
16 access transmission services and that are not unduly  
17 discriminatory or preferential.

18 “(2) The Commission shall exempt from any rule or  
19 order under this subsection any unregulated transmitting  
20 utility that—

21 “(A) sells no more than 4,000,000 megawatt  
22 hours of electricity per year;

23 “(B) does not own or operate any transmission  
24 facilities that are necessary for operating an inter-  
25 connected transmission system (or any portion  
26 thereof), or

1           “(C) meets other criteria the Commission deter-  
2           mines to be in the public interest.

3           “(3) The rate changing procedures applicable to pub-  
4           lic utilities under subsections (c) and (d) of section 205  
5           are applicable to unregulated transmitting utilities for  
6           purposes of this section.

7           “(4) In exercising its authority under paragraph (1),  
8           the Commission may remand transmission rates to an un-  
9           regulated transmitting utility for review and revision  
10          where necessary to meet the requirements of paragraph  
11          (1).

12          “(5) The provision of transmission services under  
13          paragraph (1) does not preclude a request for trans-  
14          mission services under section 211.

15          “(6) The Commission may not require a State or mu-  
16          nicipality to take action under this section that constitutes  
17          a private business use for purposes of section 141 of the  
18          Internal Revenue Code of 1986 (26 U.S.C. 141).

19          “(7) For purposes of this subsection, the term ‘un-  
20          regulated transmitting utility’ means an entity that—

21                 “(A) owns or operates facilities used for the  
22                 transmission of electric energy in interstate com-  
23                 merce, and

24                 “(B) is either an entity described in section  
25                 201(f) or a rural electric cooperative.”.

1 **SEC. 207. ELECTRIC RELIABILITY STANDARDS.**

2 Part II of the Federal Power Act is further amended  
3 by adding at the end the following:

4 **“SEC. 215. ELECTRIC RELIABILITY STANDARDS.**

5 “(a) DUTY OF THE COMMISSION.—The Commission  
6 shall establish and enforce one or more systems of manda-  
7 tory electric reliability standards to ensure the reliable op-  
8 eration of the interstate transmission system, which shall  
9 be applicable to—

10 “(1) any entity that sells, purchases, or trans-  
11 mits, electric energy using the interstate trans-  
12 mission system, and

13 “(2) any entity that owns, operates, or main-  
14 tains facilities that are a part of the interstate  
15 transmission system.

16 “(b) STANDARDS.—In carrying out its responsibility  
17 under subsection (a), the Commission may adopt and en-  
18 force, in whole or in part, a reliability standard proposed  
19 or adopted by the North American Electric Reliability  
20 Council, a regional reliability council, a similar organiza-  
21 tion, or a State regulatory authority.

22 “(c) ENFORCEMENT.—In carrying out its responsi-  
23 bility under subsection (a), the Commission may certify  
24 one or more self-regulating reliability organizations (which  
25 may include the North American Electric Reliability Coun-  
26 cil, one or more regional reliability councils, one or more

1 regional transmission organizations, or any similar organi-  
2 zation) to ensure the reliable operation of the interstate  
3 transmission system and to monitor and enforce compli-  
4 ance of their members with electric reliability standards  
5 adopted under this section.

6 “(d) COOPERATION WITH CANADA AND MEXICO.—  
7 The Commission shall ensure that any self-regulating reli-  
8 ability organization certified under this section, one or  
9 more of whose members are interconnected with transmit-  
10 ting utilities in Canada or the Republic of Mexico, provide  
11 for the participation of such utilities in the governance of  
12 the organization and the adoption of reliability standards.  
13 Nothing in this section shall be construed to extend the  
14 jurisdiction of the Commission outside of the United  
15 States.

16 “(e) PRESERVATION OF STATE AUTHORITY.—Noth-  
17 ing in this section shall be construed to preempt the au-  
18 thority of any State to take action to ensure the safety,  
19 adequacy, and reliability of local distribution facilities  
20 service within the State, except where the exercise of such  
21 authority unreasonably impairs the reliability of the inter-  
22 state transmission system.

23 “(f) DEFINITIONS.—For purposes of this section:

1           “(1) The term ‘interstate transmission system’  
2       means the network of facilities used for the trans-  
3       mission of electric energy in interstate commerce.

4           “(2) The term ‘reliability’ means the ability of  
5       the interstate transmission system to transmit suffi-  
6       cient electric energy to supply the aggregate electric  
7       demand and energy requirements of electricity con-  
8       sumers at all times and the ability of the system to  
9       withstand sudden disturbances.”.

10 **SEC. 208. MARKET TRANSPARENCY RULES.**

11       Part II of the Federal Power Act is further amended  
12 by adding at the end the following:

13 **“SEC. 216. MARKET TRANSPARENCY RULES.**

14       “(a) COMMISSION RULES.—Not later than 180 days  
15 after the date of enactment of this section, the Commis-  
16 sion shall issue rules establishing an electronic information  
17 system to provide information about the availability and  
18 price of wholesale electric energy and transmission services  
19 to the Commission, state commissions, buyers and sellers  
20 of wholesale electric energy, users of transmission services,  
21 and the public on a timely basis.

22       “(b) INFORMATION REQUIRED.—The Commission  
23 shall require—

24           “(1) each regional transmission organization to  
25       provide statistical information about the available

1 capacity and capacity constraints of transmission fa-  
 2 cilities operated by the organization; and

3 “(2) each broker, exchange, or other market-  
 4 making entity that matches offers to sell and offers  
 5 to buy wholesale electric energy in interstate com-  
 6 merce to provide statistical information about the  
 7 amount and sale price of sales of electric energy at  
 8 wholesale in interstate commerce it transacts.

9 “(c) **TIMELY BASIS.**—The Commission shall require  
 10 the information required under subsection (b) to be posted  
 11 on the Internet as soon as practicable and updated as fre-  
 12 quently as practicable.

13 “(d) **PROTECTION OF SENSITIVE INFORMATION.**—  
 14 The Commission shall exempt from disclosure commercial  
 15 or financial information that the Commission, by rule or  
 16 order, determines to be privileged, confidential, or other-  
 17 wise sensitive.”.

18 **SEC. 209. ACCESS TO TRANSMISSION BY INTERMITTENT**  
 19 **GENERATORS.**

20 Part II of the Federal Power Act is further amended  
 21 by adding at the end the following:

22 **“SEC. 217. ACCESS TO TRANSMISSION BY INTERMITTENT**  
 23 **GENERATORS.**

24 “(a) **FAIR TREATMENT OF INTERMITTENT GENERA-**  
 25 **TORS.**—The Commission shall ensure that all transmitting



1 utilities provide transmission service to intermittent gen-  
2 erators in a manner that does not penalize such genera-  
3 tors, directly or indirectly, for characteristics that are—

4 “(1) inherent to intermittent energy resources;  
5 and

6 “(2) are beyond the control of such generators.

7 “(b) POLICIES.—The Commission shall ensure that  
8 the requirement in subsection (a) is met by adopting such  
9 policies as it deems appropriate which shall include, but  
10 not be limited to, the following:

11 “(1) Subject to the sole exception set forth in  
12 paragraph (2), the Commission shall ensure that the  
13 rates transmitting utilities charge intermittent gen-  
14 erator customers for transmission services do not di-  
15 rectly or indirectly penalize intermittent generator  
16 customers for scheduling deviations.

17 “(2) The Commission may exempt a transmit-  
18 ting utility from the requirement set forth in sub-  
19 section (b) if the transmitting utility demonstrates  
20 that scheduling deviations by its intermittent gener-  
21 ator customers are likely to have a substantial ad-  
22 verse impact on the reliability of the transmitting  
23 utility’s system. For purposes of administering this  
24 exemption, there shall be a rebuttable presumption  
25 of no adverse impact where intermittent generators

1 collectively constitute 20 percent or less of total gen-  
2 eration interconnected with transmitting utility's  
3 system and using transmission services provided by  
4 transmitting utility.

5 “(3) The Commission shall ensure that to the  
6 extent any transmission charges recovering the  
7 transmitting utility's embedded costs are assessed to  
8 intermittent generators, they are assessed to such  
9 generators on the basis of kilowatt-hours generated  
10 rather than the intermittent generator's capacity.

11 “(4) The Commission shall require transmitting  
12 utilities to offer to intermittent generators, and may  
13 require transmitting utilities to offer to all trans-  
14 mission customers, access to nonfirm transmission  
15 service pursuant to long-term contracts of up to ten  
16 years duration under reasonable terms and condi-  
17 tions.

18 “(c) DEFINITIONS.—As used in this section:

19 “(1) The term ‘intermittent generator’ means a  
20 facility that generates electricity using wind or solar  
21 energy and no other energy source.

22 “(2) The term ‘nonfirm transmission service’  
23 means transmission service provided on an ‘as avail-  
24 able’ basis.

1           “(3) The term ‘scheduling deviation’ means de-  
2       livery of more or less energy than has previously  
3       been forecast in a schedule submitted by an inter-  
4       mittent generator to a control area operator or  
5       transmitting utility.”.

6   **SEC. 210. ENFORCEMENT.**

7       (a) COMPLAINTS.—Section 306 of the Federal Power  
8   Act (16 U.S.C. 825e) is amended by—

9           (1) inserting “electric utility,” after “Any per-  
10      son,”; and

11          (2) inserting “transmitting utility,” after “li-  
12      censee” each place it appears.

13      (b) INVESTIGATIONS.—Section 307(a) of the Federal  
14   Power Act (16 U.S.C. 825f(a)) is amended by inserting  
15   “or transmitting utility” after “any person” in the first  
16   sentence.

17      (c) REVIEW OF COMMISSION ORDERS.—Section  
18   313(a) of the Federal Power Act (16 U.S.C. 8251) is  
19   amended by inserting “electric utility,” after “Any per-  
20   son,” in the first sentence.

21      (d) CRIMINAL PENALTIES.—Section 316(c) of the  
22   Federal Power Act (16 U.S.C. 825o(c)) is repealed.

23      (e) CIVIL PENALTIES.—Section 316A of the Federal  
24   Power Act (16 U.S.C. 825o–1) is amended by striking

1 “section 211, 212, 213, or 214” each place it appears and  
2 inserting “Part II”.

3 **Subtitle B—Amendments to the**  
4 **Public Utility Holding Company**  
5 **Act**

6 **SEC. 221. SHORT TITLE.**

7 This subtitle may be cited as the “Public Utility  
8 Holding Company Act of 2002”.

9 **SEC. 222. DEFINITIONS.**

10 For purposes of this subtitle:

11 (1) The term “affiliate” of a company means  
12 any company, 5 percent or more of the outstanding  
13 voting securities of which are owned, controlled, or  
14 held with power to vote, directly or indirectly, by  
15 such company.

16 (2) The term “associate company” of a com-  
17 pany means any company in the same holding com-  
18 pany system with such company.

19 (3) The term “Commission” means the Federal  
20 Energy Regulatory Commission.

21 (4) The term “company” means a corporation,  
22 partnership, association, joint stock company, busi-  
23 ness trust, or any organized group of persons,  
24 whether incorporated or not, or a receiver, trustee,  
25 or other liquidating agent of any of the foregoing.

1           (5) The term “electric utility company” means  
2           any company that owns or operates facilities used  
3           for the generation, transmission, or distribution of  
4           electric energy for sale.

5           (6) The terms “exempt wholesale generator”  
6           and “foreign utility company” have the same mean-  
7           ings as in sections 32 and 33, respectively, of the  
8           Public Utility Holding Company Act of 1935 (15  
9           U.S.C. 79z-5a, 79z-5b), as those sections existed on  
10          the day before the effective date of this subtitle.

11          (7) The term “gas utility company” means any  
12          company that owns or operates facilities used for  
13          distribution at retail (other than the distribution  
14          only in enclosed portable containers or distribution  
15          to tenants or employees of the company operating  
16          such facilities for their own use and not for resale)  
17          of natural or manufactured gas for heat, light, or  
18          power.

19          (8) The term “holding company” means—

20                (A) any company that directly or indirectly  
21                owns, controls, or holds, with power to vote, 10  
22                percent or more of the outstanding voting secu-  
23                rities of a public utility company or of a holding  
24                company of any public utility company; and

1           (B) any person, determined by the Com-  
2 mission, after notice and opportunity for hear-  
3 ing, to exercise directly or indirectly (either  
4 alone or pursuant to an arrangement or under-  
5 standing with one or more persons) such a con-  
6 trolling influence over the management or poli-  
7 cies of any public utility company or holding  
8 company as to make it necessary or appropriate  
9 for the rate protection of utility customers with  
10 respect to rates that such person be subject to  
11 the obligations, duties, and liabilities imposed  
12 by this subtitle upon holding companies.

13           (9) The term “holding company system” means  
14 a holding company, together with its subsidiary com-  
15 panies.

16           (10) The term “jurisdictional rates” means  
17 rates established by the Commission for the trans-  
18 mission of electric energy in interstate commerce,  
19 the sale of electric energy at wholesale in interstate  
20 commerce, the transportation of natural gas in inter-  
21 state commerce, and the sale in interstate commerce  
22 of natural gas for resale for ultimate public con-  
23 sumption for domestic, commercial, industrial, or  
24 any other use.

1           (11) The term “natural gas company” means a  
2           person engaged in the transportation of natural gas  
3           in interstate commerce or the sale of such gas in  
4           interstate commerce for resale.

5           (12) The term “person” means an individual or  
6           company.

7           (13) The term “public utility” means any per-  
8           son who owns or operates facilities used for trans-  
9           mission of electric energy in interstate commerce or  
10          sales of electric energy at wholesale in interstate  
11          commerce.

12          (14) The term “public utility company” means  
13          an electric utility company or a gas utility company.

14          (15) The term “State commission” means any  
15          commission, board, agency, or officer, by whatever  
16          name designated, of a State, municipality, or other  
17          political subdivision of a State that, under the laws  
18          of such State, has jurisdiction to regulate public util-  
19          ity companies.

20          (16) The term “subsidiary company” of a hold-  
21          ing company means—

22                 (A) any company, 10 percent or more of  
23                 the outstanding voting securities of which are  
24                 directly or indirectly owned, controlled, or held

1 with power to vote, by such holding company;  
 2 and

3 (B) any person, the management or poli-  
 4 cies of which the Commission, after notice and  
 5 opportunity for hearing, determines to be sub-  
 6 ject to a controlling influence, directly or indi-  
 7 rectly, by such holding company (either alone or  
 8 pursuant to an arrangement or understanding  
 9 with one or more other persons) so as to make  
 10 it necessary for the rate protection of utility  
 11 customers with respect to rates that such per-  
 12 son be subject to the obligations, duties, and li-  
 13 abilities imposed by this subtitle upon sub-  
 14 sidiary companies of holding companies.

15 (17) The term “voting security” means any se-  
 16 curity presently entitling the owner or holder thereof  
 17 to vote in the direction or management of the affairs  
 18 of a company.

19 **SEC. 223. REPEAL OF THE PUBLIC UTILITY HOLDING COM-**  
 20 **PANY ACT OF 1935.**

21 The Public Utility Holding Company Act of 1935 (15  
 22 U.S.C. 79 et seq.) is repealed.

23 **SEC. 224. FEDERAL ACCESS TO BOOKS AND RECORDS.**

24 (a) IN GENERAL.—Each holding company and each  
 25 associate company thereof shall maintain, and shall make



1 available to the Commission, such books, accounts, memo-  
2 randa, and other records as the Commission deems to be  
3 relevant to costs incurred by a public utility or natural  
4 gas company that is an associate company of such holding  
5 company and necessary or appropriate for the protection  
6 of utility customers with respect to jurisdictional rates.

7 (b) AFFILIATE COMPANIES.—Each affiliate of a hold-  
8 ing company or of any subsidiary company of a holding  
9 company shall maintain, and shall make available to the  
10 Commission, such books, accounts, memoranda, and other  
11 records with respect to any transaction with another affil-  
12 iate, as the Commission deems to be relevant to costs in-  
13 curred by a public utility or natural gas company that is  
14 an associate company of such holding company and nec-  
15 essary or appropriate for the protection of utility cus-  
16 tomers with respect to jurisdictional rates.

17 (c) HOLDING COMPANY SYSTEMS.—The Commission  
18 may examine the books, accounts, memoranda, and other  
19 records of any company in a holding company system, or  
20 any affiliate thereof, as the Commission deems to be rel-  
21 evant to costs incurred by a public utility or natural gas  
22 company within such holding company system and nec-  
23 essary or appropriate for the protection of utility cus-  
24 tomers with respect to jurisdictional rates.

1 (d) CONFIDENTIALITY.—No member, officer, or em-  
2 ployee of the Commission shall divulge any fact or infor-  
3 mation that may come to his or her knowledge during the  
4 course of examination of books, accounts, memoranda, or  
5 other records as provided in this section, except as may  
6 be directed by the Commission or by a court of competent  
7 jurisdiction.

8 **SEC. 225. STATE ACCESS TO BOOKS AND RECORDS.**

9 (a) IN GENERAL.—Upon the written request of a  
10 State commission having jurisdiction to regulate a public  
11 utility company in a holding company system, the holding  
12 company or any associate company or affiliate thereof,  
13 other than such public utility company, wherever located,  
14 shall produce for inspection books, accounts, memoranda,  
15 and other records that—

16 (1) have been identified in reasonable detail by  
17 the State commission;

18 (2) the State commission deems are relevant to  
19 costs incurred by such public utility company; and

20 (3) are necessary for the effective discharge of  
21 the responsibilities of the State commission with re-  
22 spect to such proceeding.

23 (b) LIMITATION.—Subsection (a) does not apply to  
24 any person that is a holding company solely by reason of  
25 ownership of one or more qualifying facilities under the

1 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
2 2601 et seq.).

3 (c) CONFIDENTIALITY OF INFORMATION.—The pro-  
4 duction of books, accounts, memoranda, and other records  
5 under subsection (a) shall be subject to such terms and  
6 conditions as may be necessary and appropriate to safe-  
7 guard against unwarranted disclosure to the public of any  
8 trade secrets or sensitive commercial information.

9 (d) EFFECT ON STATE LAW.—Nothing in this sec-  
10 tion shall preempt applicable State law concerning the pro-  
11 vision of books, accounts, memoranda, and other records,  
12 or in any way limit the rights of any State to obtain books,  
13 accounts, memoranda, and other records under any other  
14 Federal law, contract, or otherwise.

15 (e) COURT JURISDICTION.—Any United States dis-  
16 trict court located in the State in which the State commis-  
17 sion referred to in subsection (a) is located shall have ju-  
18 risdiction to enforce compliance with this section.

19 **SEC. 226. EXEMPTION AUTHORITY.**

20 (a) RULEMAKING.—Not later than 90 days after the  
21 effective date of this subtitle, the Commission shall pro-  
22 mulgate a final rule to exempt from the requirements of  
23 section 224 any person that is a holding company, solely  
24 with respect to one or more—

1           (1) qualifying facilities under the Public Utility  
2       Regulatory Policies Act of 1978 (16 U.S.C. 2601 et  
3       seq.);

4           (2) exempt wholesale generators; or

5           (3) foreign utility companies.

6       (b) OTHER AUTHORITY.—The Commission shall ex-  
7       empt a person or transaction from the requirements of  
8       section 224, if, upon application or upon the motion of  
9       the Commission—

10           (1) the Commission finds that the books, ac-  
11       counts, memoranda, and other records of any person  
12       are not relevant to the jurisdictional rates of a pub-  
13       lic utility or natural gas company; or

14           (2) the Commission finds that any class of  
15       transactions is not relevant to the jurisdictional  
16       rates of a public utility or natural gas company.

17       **SEC. 227. AFFILIATE TRANSACTIONS.**

18       (a) COMMISSION AUTHORITY UNAFFECTED.—Noth-  
19       ing in this subtitle shall limit the authority of the Commis-  
20       sion under the Federal Power Act (16 U.S.C. 791a et seq.)  
21       to require that jurisdictional rates are just and reasonable,  
22       including the ability to deny or approve the pass through  
23       of costs, the prevention of cross-subsidization, and the pro-  
24       mulgation of such rules and regulations as are necessary  
25       or appropriate for the protection of utility consumers.

1 (b) RECOVERY OF COSTS.—Nothing in this subtitle  
2 shall preclude the Commission or a State commission from  
3 exercising its jurisdiction under otherwise applicable law  
4 to determine whether a public utility company, public util-  
5 ity, or natural gas company may recover in rates any costs  
6 of an activity performed by an associate company, or any  
7 costs of goods or services acquired by such public utility  
8 company from an associate company.

9 **SEC. 228. APPLICABILITY.**

10 Except as otherwise specifically provided in this sub-  
11 title, no provision of this subtitle shall apply to, or be  
12 deemed to include—

13 (1) the United States;

14 (2) a State or any political subdivision of a  
15 State;

16 (3) any foreign governmental authority not op-  
17 erating in the United States;

18 (4) any agency, authority, or instrumentality of  
19 any entity referred to in paragraph (1), (2), or (3);  
20 or

21 (5) any officer, agent, or employee of any entity  
22 referred to in paragraph (1), (2), or (3) acting as  
23 such in the course of his or her official duty.

1 **SEC. 229. EFFECT ON OTHER REGULATIONS.**

2       Nothing in this subtitle precludes the Commission or  
3 a State commission from exercising its jurisdiction under  
4 otherwise applicable law to protect utility customers.

5 **SEC. 230. ENFORCEMENT.**

6       The Commission shall have the same powers as set  
7 forth in sections 306 through 317 of the Federal Power  
8 Act (16 U.S.C. 825e–825p) to enforce the provisions of  
9 this subtitle.

10 **SEC. 231. SAVINGS PROVISIONS.**

11       (a) IN GENERAL.—Nothing in this subtitle prohibits  
12 a person from engaging in or continuing to engage in ac-  
13 tivities or transactions in which it is legally engaged or  
14 authorized to engage on the effective date of this subtitle.

15       (b) EFFECT ON OTHER COMMISSION AUTHORITY.—  
16 Nothing in this subtitle limits the authority of the Com-  
17 mission under the Federal Power Act (16 U.S.C. 791a et  
18 seq.) (including section 301 of that Act) or the Natural  
19 Gas Act (15 U.S.C. 717 et seq.) (including section 8 of  
20 that Act).

21 **SEC. 232. IMPLEMENTATION.**

22       Not later than 18 months after the date of enactment  
23 of this subtitle, the Commission shall—

24               (1) promulgate such regulations as may be nec-  
25       essary or appropriate to implement this subtitle  
26       (other than section 225); and

1           (2) submit to the Congress detailed rec-  
2           ommendations on technical and conforming amend-  
3           ments to Federal law necessary to carry out this  
4           subtitle and the amendments made by this subtitle.

5 **SEC. 233. TRANSFER OF RESOURCES.**

6           All books and records that relate primarily to the  
7           functions transferred to the Commission under this sub-  
8           title shall be transferred from the Securities and Exchange  
9           Commission to the Commission.

10 **SEC. 234. INTER-AGENCY REVIEW OF COMPETITION IN THE**  
11 **WHOLESALE AND RETAIL MARKETS FOR**  
12 **ELECTRIC ENERGY.**

13           (a) TASK FORCE.—There is established an inter-  
14           agency task force, to be known as the “Electric Energy  
15           Market Competition Task Force” (referred to in this sec-  
16           tion as the “task force”), which shall consist of—

17                   (1) 1 member each from—

18                           (A) the Department of Justice, to be ap-  
19                           pointed by the Attorney General of the United  
20                           States;

21                           (B) the Federal Energy Regulatory Com-  
22                           mission, to be appointed by the chairman of  
23                           that Commission; and

1 (C) the Federal Trade Commission, to be  
2 appointed by the chairman of that Commission;  
3 and

4 (2) 2 advisory members (who shall not vote), of  
5 whom—

6 (A) 1 shall be appointed by the Secretary  
7 of Agriculture to represent the Rural Utility  
8 Service; and

9 (B) 1 shall be appointed by the Chairman  
10 of the Securities and Exchange Commission to  
11 represent that Commission.

12 (b) STUDY AND REPORT.—

13 (1) STUDY.—The task force shall perform a  
14 study and analysis of the protection and promotion  
15 of competition within the wholesale and retail mar-  
16 ket for electric energy in the United States.

17 (2) REPORT.—

18 (A) FINAL REPORT.—Not later than 1  
19 year after the effective date of this subtitle, the  
20 task force shall submit a final report of its find-  
21 ings under paragraph (1) to the Congress.

22 (B) PUBLIC COMMENT.—At least 60 days  
23 before submission of a final report to the Con-  
24 gress under subparagraph (A), the task force



1           shall publish a draft report in the Federal Reg-  
2           ister to provide for public comment.

3       (c) FOCUS.—The study required by this section shall  
4 examine—

5           (1) the best means of protecting competition  
6       within the wholesale and retail electric market;

7           (2) activities within the wholesale and retail  
8       electric market that may allow unfair and unjusti-  
9       fied discriminatory and deceptive practices;

10          (3) activities within the wholesale and retail  
11       electric market, including mergers and acquisitions,  
12       that deny market access or suppress competition;

13          (4) cross-subsidization that may occur between  
14       regulated and nonregulated activities; and

15          (5) the role of State public utility commissions  
16       in regulating competition in the wholesale and retail  
17       electric market.

18       (d) CONSULTATION.—In performing the study re-  
19       quired by this section, the task force shall consult with  
20       and solicit comments from its advisory members, the  
21       States, representatives of the electric power industry, and  
22       the public.

23 **SEC. 235. GAO STUDY ON IMPLEMENTATION.**

24       (a) STUDY.—The Comptroller General shall conduct  
25       a study of the success of the Federal Government and the

1 States during the 18-month period following the effective  
2 date of this subtitle in—

3 (1) the prevention of anticompetitive practices  
4 and other abuses by public utility holding companies,  
5 including cross-subsidization and other market  
6 power abuses; and

7 (2) the promotion of competition and efficient  
8 energy markets to the benefit of consumers.

9 (b) REPORT TO CONGRESS.—Not earlier than 18  
10 months after the effective date of this subtitle or later  
11 than 24 months after that effective date, the Comptroller  
12 General shall submit a report to the Congress on the re-  
13 sults of the study conducted under subsection (a), includ-  
14 ing probable causes of its findings and recommendations  
15 to the Congress and the States for any necessary legisla-  
16 tive changes.

17 **SEC. 236. EFFECTIVE DATE.**

18 This subtitle shall take effect 18 months after the  
19 date of enactment of this subtitle.

20 **SEC. 237. AUTHORIZATION OF APPROPRIATIONS.**

21 There are authorized to be appropriated such funds  
22 as may be necessary to carry out this subtitle.

1 **SEC. 238. CONFORMING AMENDMENTS TO THE FEDERAL**  
2 **POWER ACT.**

3 (a) CONFLICT OF JURISDICTION.—Section 318 of the  
4 Federal Power Act (16 U.S.C. 825q) is repealed.

5 (b) DEFINITIONS.—

6 (1) Section 201(g) of the Federal Power Act  
7 (16 U.S.C. 824(g)) is amended by striking “1935”  
8 and inserting “2002”.

9 (2) Section 214 of the Federal Power Act (16  
10 U.S.C. 824m) is amended by striking “1935” and  
11 inserting “2002”.

12 **Subtitle C—Amendments to the**  
13 **Public Utility Regulatory Poli-**  
14 **cies Act of 1978**

15 **SEC. 241. REAL-TIME PRICING STANDARD.**

16 (a) ADOPTION OF STANDARD.—Section 111(d) of the  
17 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.  
18 2621(d)) is amended by adding at the end the following:

19 “(11) REAL-TIME PRICING.—(A) Each electric  
20 utility shall, at the request of an electric consumer,  
21 provide electric service under a real-time rate sched-  
22 ule, under which the rate charged by the electric  
23 utility varies by the hour (or smaller time interval)  
24 according to changes in the electric utility’s whole-  
25 sale power cost. The real-time pricing service shall  
26 enable the electric consumer to manage energy use

1 and cost through real-time metering and commu-  
2 nications technology.

3 “(B) For purposes of implementing this para-  
4 graph, any reference contained in this section to the  
5 date of enactment of the Public Utility Regulatory  
6 Policies Act of 1978 shall be deemed to be a ref-  
7 erence to the date of enactment of this paragraph.

8 “(C) Notwithstanding subsections (b) and (c) of  
9 section 112, each State regulatory authority shall  
10 consider and make a determination concerning  
11 whether it is appropriate to implement the standard  
12 set out in subparagraph (A) not later than one year  
13 after the date of enactment of this paragraph.”.

14 (b) SPECIAL RULES FOR REAL-TIME PRICING  
15 STANDARD.—Section 115 of the Public Utility Regulatory  
16 Policies Act of 1978 (16 U.S.C. 2625) is amended by add-  
17 ing at the end the following:

18 “(i) REAL-TIME PRICING.—In a state that permits  
19 third-party marketers to sell electric energy to retail elec-  
20 tric consumers, the electric consumer shall be entitled to  
21 receive the same real-time metering and communication  
22 service as a direct retail electric consumer of the electric  
23 utility.”.

1 **SEC. 242. ADOPTION OF ADDITIONAL STANDARDS.**

2 (a) ADOPTION OF STANDARDS.—Section 113(b) of  
3 the Public Utility Regulatory Policies Act of 1978 (16  
4 U.S.C. 2623(b)) is amended by adding at the end the fol-  
5 lowing:

6 “(6) DISTRIBUTED GENERATION.—Each elec-  
7 tric utility shall provide distributed generation, com-  
8 bined heat and power, and district heating and cool-  
9 ing systems competitive access to the local distribu-  
10 tion grid and competitive pricing of service, and  
11 shall use simplified standard contracts for the inter-  
12 connection of generating facilities that have a power  
13 production capacity of 250 kilowatts or less.

14 “(7) DISTRIBUTION INTERCONNECTIONS.—No  
15 electric utility may refuse to interconnect a gener-  
16 ating facility with the distribution facilities of the  
17 electric utility if the owner or operator of the gener-  
18 ating facility complies with technical standards  
19 adopted by the State regulatory authority and  
20 agrees to pay the costs established by such State  
21 regulatory authority.

22 “(8) MINIMUM FUEL AND TECHNOLOGY DIVER-  
23 SITY STANDARD.—Each electric utility shall develop  
24 a plan to minimize dependence on one fuel source  
25 and to ensure that the electric energy it sells to con-

1       sumers is generated using a diverse range of fuels  
2       and technologies, including renewable technologies.

3               “(9) FOSSIL FUEL EFFICIENCY.—Each electric  
4       utility shall develop and implement a ten-year plan  
5       to increase the efficiency of its fossil fuel generation  
6       and shall monitor and report to its State regulatory  
7       authority excessive greenhouse gas emissions result-  
8       ing from the inefficient operation of its fossil fuel  
9       generating plants.”.

10       (c) TIME FOR ADOPTING STANDARDS.—Section 113  
11       of the Public Utility Regulatory Policies Act of 1978 (16  
12       U.S.C. 2623) is further amended by adding at the end  
13       the following:

14               “(d) SPECIAL RULE.—For purposes of implementing  
15       paragraphs (6), (7), (8), and (9) of subsection (b), any  
16       reference contained in this section to the date of enact-  
17       ment of the Public Utility Regulatory Policies Act of 1978  
18       shall be deemed to be a reference to the date of enactment  
19       of this subsection.”.

20       **SEC. 243. TECHNICAL ASSISTANCE.**

21       Section 132(c) of the Public Utility Regulatory Poli-  
22       cies Act of 1978 (16 U.S.C. 2642(c)) is amended to read  
23       as follows:

24               “(c) TECHNICAL ASSISTANCE FOR CERTAIN RESPON-  
25       SIBILITIES.—The Secretary may provide such technical

1 assistance as he determines appropriate to assist State  
 2 regulatory authorities and electric utilities in carrying out  
 3 their responsibilities under section 111(d)(11) and para-  
 4 graphs (6), (7), (8), and (9) of section 113(b).”.

5 **SEC. 244. COGENERATION AND SMALL POWER PRODUC-**  
 6 **TION PURCHASE AND SALE REQUIREMENTS.**

7 (a) TERMINATION OF MANDATORY PURCHASE AND  
 8 SALE REQUIREMENTS.—Section 210 of the Public Utility  
 9 Regulatory Policies Act of 1978 (16 U.S.C. 824a–3) is  
 10 amended by adding at the end the following:

11 “(m) TERMINATION OF MANDATORY PURCHASE AND  
 12 SALE REQUIREMENTS.—

13 “(1) IN GENERAL.—After the date of enact-  
 14 ment of this subsection, no electric utility shall be  
 15 required to enter into a new contract or obligation  
 16 to purchase or sell electric energy under this section.

17 “(2) NO EFFECT ON EXISTING RIGHTS AND  
 18 REMEDIES.—Nothing in this subsection affects the  
 19 rights or remedies of any party with respect to the  
 20 purchase or sale of electric energy or capacity from  
 21 or to a facility under this section under any contract  
 22 or obligation to purchase or to sell electric energy or  
 23 capacity on the date of enactment of this subsection,  
 24 including—

1           “(A) the right to recover costs of pur-  
2 chasing such electric energy or capacity; and

3           “(B) in States without competition for re-  
4 tail electric supply, the obligation of a utility to  
5 provide, at just and reasonable rates for con-  
6 sumption by a qualifying small power produc-  
7 tion facility or a qualifying cogeneration facility,  
8 backup, standby, and maintenance power.

9           “(3) RECOVERY OF COSTS.—

10           “(A) REGULATION.—To ensure recovery  
11 by an electric utility that purchases electric en-  
12 ergy or capacity from a qualifying facility pur-  
13 suant to any legally enforceable obligation en-  
14 tered into or imposed under this section before  
15 the date of enactment of this subsection, of all  
16 prudently incurred costs associated with the  
17 purchases, the Commission shall issue and en-  
18 force such regulations as may be required to en-  
19 sure that the electric utility shall collect the  
20 prudently incurred costs associated with such  
21 purchases.

22           “(B) ENFORCEMENT.—A regulation under  
23 subparagraph (A) shall be enforceable in ac-  
24 cordance with the provisions of law applicable



1 to enforcement of regulations under the Federal  
2 Power Act (16 U.S.C. 791a et seq.).”.

3 (b) ELIMINATION OF OWNERSHIP LIMITATIONS.—

4 (1) Section 3(17)(C) of the Federal Power Act  
5 (16 U.S.C. 796(17)(C)) is amended to read as fol-  
6 lows:

7 “(C) ‘qualifying small power production fa-  
8 cility’ means a small power production facility  
9 that the Commission determines, by rule, meets  
10 such requirements (including requirements re-  
11 specting minimum size, fuel use, and fuel effi-  
12 ciency) as the Commission may, by rule, pre-  
13 scribe.”.

14 (2) Section 3(18)(B) of the Federal Power Act  
15 (16 U.S.C. 796(18)(B)) is amended to read as fol-  
16 lows:

17 “(B) ‘qualifying cogeneration facility’  
18 means a cogeneration facility that the Commis-  
19 sion determines, by rule, meets such require-  
20 ments (including requirements respecting min-  
21 imum size, fuel use, and fuel efficiency) as the  
22 Commission may, by rule, prescribe.”.

23 **SEC. 245. NET METERING.**

24 Title VI of the Public Utility Regulatory Policies Act  
25 of 1978 is amended by adding at the end the following:

1 **“SEC. 605. NET METERING FOR RENEWABLE ENERGY AND**  
2 **FUEL CELLS.**

3 “(a) DEFINITIONS.—For purposes of this section:

4 “(1) The term ‘eligible on-site generating facil-  
5 ity’ means—

6 “(A) a facility on the site of a residential  
7 electric consumer with a maximum generating  
8 capacity of 10 kilowatts or less that is fueled by  
9 solar energy, wind energy, or fuel cells; or

10 “(B) a facility on the site of a commercial  
11 electric consumer with a maximum generating  
12 capacity of 500 kilowatts or less that is fueled  
13 solely by a renewable energy resource, landfill  
14 gas, or a high efficiency system.

15 “(2) The term ‘renewable energy resource’  
16 means solar, wind, biomass, or geothermal energy.

17 “(3) The term ‘high efficiency system’ means  
18 fuel cells or combined heat and power.

19 “(4) The term ‘net metering service’ means  
20 service to an electric consumer under which electric  
21 energy generated by that electric consumer from an  
22 eligible on-site generating facility and delivered to  
23 the local distribution facilities may be used to offset  
24 electric energy provided by the electric utility to the  
25 electric consumer during the applicable billing pe-  
26 riod.

1       “(b) REQUIREMENT TO PROVIDE NET METERING  
2 SERVICE.—Each electric utility shall make available upon  
3 request net metering service to an electric consumer that  
4 the electric utility serves.

5       “(c) RATES AND CHARGES.—

6           “(1) IDENTICAL CHARGES.—An electric  
7 utility—

8               “(A) shall charge the owner or operator of  
9 an on-site generating facility rates and charges  
10 that are identical to those that would be  
11 charged other electric consumers of the electric  
12 utility in the same rate class; and

13               “(B) shall not charge the owner or oper-  
14 ator of an on-site generating facility any addi-  
15 tional standby, capacity, interconnection, or  
16 other rate or charge.

17           “(2) MEASUREMENT.—An electric utility that  
18 sells electric energy to the owner or operator of an  
19 on-site generating facility shall measure the quantity  
20 of electric energy produced by the on-site facility  
21 and the quantity of electric energy consumed by the  
22 owner or operator of an on-site generating facility  
23 during a billing period in accordance with normal  
24 metering practices.

1           “(3) ELECTRIC ENERGY SUPPLIED EXCEEDING  
2           ELECTRIC ENERGY GENERATED.—If the quantity of  
3           electric energy sold by the electric utility to an on-  
4           site generating facility exceeds the quantity of elec-  
5           tric energy supplied by the on-site generating facility  
6           to the electric utility during the billing period, the  
7           electric utility may bill the owner or operator for the  
8           net quantity of electric energy sold, in accordance  
9           with normal metering practices.

10           “(4) ELECTRIC ENERGY GENERATED EXCEED-  
11           ING ELECTRIC ENERGY SUPPLIED.—If the quantity  
12           of electric energy supplied by the on-site generating  
13           facility to the electric utility exceeds the quantity of  
14           electric energy sold by the electric utility to the on-  
15           site generating facility during the billing period—

16                   “(A) the electric utility may bill the owner  
17                   or operator of the on-site generating facility for  
18                   the appropriate charges for the billing period in  
19                   accordance with paragraph (2); and

20                   “(B) the owner or operator of the on-site  
21                   generating facility shall be credited for the ex-  
22                   cess kilowatt-hours generated during the billing  
23                   period, with the kilowatt-hour credit appearing  
24                   on the bill for the following billing period.

25           “(d) SAFETY AND PERFORMANCE STANDARDS.—

1           “(1) An eligible on-site generating facility and  
2           net metering system used by an electric consumer  
3           shall meet all applicable safety, performance, reli-  
4           ability, and interconnection standards established by  
5           the National Electrical Code, the Institute of Elec-  
6           trical and Electronics Engineers, and Underwriters  
7           Laboratories.

8           “(2) The Commission, after consultation with  
9           State regulatory authorities and nonregulated elec-  
10          tric utilities and after notice and opportunity for  
11          comment, may adopt, by rule, additional control and  
12          testing requirements for on-site generating facilities  
13          and net metering systems that the Commission de-  
14          termines are necessary to protect public safety and  
15          system reliability.

16          “(e) APPLICATION.—This section applies to each  
17          electric utility during any calendar year in which the total  
18          sales of electric energy by such utility for purposes other  
19          than resale exceeded 1,000,000,000 kilowatt-hours during  
20          the preceding calendar year.”.

## 21   **Subtitle D—Consumer Protections**

### 22   **SEC. 251. INFORMATION DISCLOSURE.**

23          (a) OFFERS AND SOLICITATIONS.—The Federal  
24          Trade Commission shall issue rules requiring each electric  
25          utility that makes an offer to sell electric energy, or solicits

1 electric consumers to purchase electric energy to provide  
2 the electric consumer a statement containing the following  
3 information:

4 (1) the nature of the service being offered, in-  
5 cluding information about interruptibility of service;

6 (2) the price of the electric energy, including a  
7 description of any variable charges;

8 (3) a description of all other charges associated  
9 with the service being offered, including access  
10 charges, exit charges, back-up service charges,  
11 stranded cost recovery charges, and customer service  
12 charges; and

13 (4) information the Federal Trade Commission  
14 determines is technologically and economically fea-  
15 sible to provide, is of assistance to electric con-  
16 sumers in making purchasing decisions, and  
17 concerns—

18 (A) the product or its price,

19 (B) the share of electric energy that is  
20 generated by each fuel type; and

21 (C) the environmental emissions produced  
22 in generating the electric energy.

23 (b) PERIODIC BILLINGS.—The Federal Trade Com-  
24 mission shall issue rules requiring any electric utility that  
25 sells electric energy to transmit to each of its electric con-

1 sumers, in addition to the information transmitted pursu-  
2 ant to section 115(f) of the Public Utility Regulatory Poli-  
3 cies Act of 1978 (16 U.S.C. 2625(f)), a clear and concise  
4 statement containing the information described in sub-  
5 section (a)(4) for each billing period (unless such informa-  
6 tion is not reasonably ascertainable by the electric utility).

7 **SEC. 252. CONSUMER PRIVACY.**

8 (a) PROHIBITION.—The Federal Trade Commission  
9 shall issue rules prohibiting any electric utility that ob-  
10 tains consumer information in connection with the sale or  
11 delivery of electric energy to an electric consumer from  
12 using, disclosing, or permitting access to such information  
13 unless the electric consumer to whom such information re-  
14 lates provides prior written approval.

15 (b) PERMITTED USE.—The rules issued under this  
16 section shall not prohibit any electric utility from using,  
17 disclosing, or permitting access to consumer information  
18 referred to in subsection (a) for any of the following pur-  
19 poses:

- 20 (1) to facilitate an electric consumer's change  
21 in selection of an electric utility under procedures  
22 approved by the State or State regulatory authority;
- 23 (2) to initiate, render, bill, or collect for the sale  
24 or delivery of electric energy to electric consumers or  
25 for related services;

1           (3) to protect the rights or property of the per-  
2       son obtaining such information;

3           (4) to protect retail electric consumers from  
4       fraud, abuse, and unlawful subscription in the sale  
5       or delivery of electric energy to such consumers;

6           (5) for law enforcement purposes; or

7           (6) for purposes of compliance with any Fed-  
8       eral, State, or local law or regulation authorizing  
9       disclosure of information to a Federal, State, or  
10      local agency.

11      (c) AGGREGATE CONSUMER INFORMATION.—The  
12      rules issued under this subsection may permit a person  
13      to use, disclose, and permit access to aggregate consumer  
14      information and may require an electric utility to make  
15      such information available to other electric utilities upon  
16      request and payment of a reasonable fee.

17      (d) DEFINITIONS.—As used in this section:

18           (1) The term “aggregate consumer informa-  
19       tion” means collective data that relates to a group  
20       or category of retail electric consumers, from which  
21       individual consumer identities and characteristics  
22       have been removed.

23           (2) The term “consumer information” means  
24       information that relates to the quantity, technical  
25       configuration, type, destination, or amount of use of



1 electric energy delivered to any retail electric con-  
2 sumer.

3 **SEC. 253. UNFAIR TRADE PRACTICES.**

4 (a) SLAMMING.—The Federal Trade Commission  
5 shall issue rules prohibiting the change of selection of an  
6 electric utility except with the informed consent of the  
7 electric consumer.

8 (b) CRAMMING.—The Federal Trade Commission  
9 shall issue rules prohibiting the sale of goods and services  
10 to an electric consumer unless expressly authorized by law  
11 or the electric consumer.

12 **SEC. 254. APPLICABLE PROCEDURES.**

13 The Federal Trade Commission shall proceed in ac-  
14 cordance with section 553 of title 5, United States Code,  
15 when prescribing a rule required by this subtitle.

16 **SEC. 255. FEDERAL TRADE COMMISSION ENFORCEMENT.**

17 Violation of a rule issued under this subtitle shall be  
18 treated as a violation of a rule under section 18 of the  
19 Federal Trade Commission Act (15 U.S.C. 57a) respect-  
20 ing unfair or deceptive acts or practices. All functions and  
21 powers of the Federal Trade Commission under such Act  
22 are available to the Federal Trade Commission to enforce  
23 compliance with this subtitle notwithstanding any jurisdic-  
24 tional limits in such Act.

1   **SEC. 256. STATE AUTHORITY.**

2           Nothing in this subtitle shall be construed to preclude  
3   a State or State regulatory authority from prescribing and  
4   enforcing additional laws, rules, or procedures regarding  
5   the practices which are the subject of this section, so long  
6   as such laws, rules, or procedures are not inconsistent with  
7   the provisions of this section or with any rule prescribed  
8   by the Federal Trade Commission pursuant to it.

9   **SEC. 257. APPLICATION OF SUBTITLE.**

10          The provisions of this subtitle apply to each electric  
11   utility if the total sales of electric energy by such utility  
12   for purposes other than resale exceed 500 million kilowatt-  
13   hours per calendar year. The provisions of this stubtitle  
14   do not apply to the operations of an electric utility to the  
15   extent that such operations relate to sales of electric en-  
16   ergy for purposes of resale.

17   **SEC. 258. DEFINITIONS.**

18          As used in this subtitle:

19           (1) The term “aggregate consumer informa-  
20   tion” means collective data that relates to a group  
21   or category of electric consumers, from which indi-  
22   vidual consumer identities and identifying character-  
23   istics have been removed.

24           (2) The term “consumer information” means  
25   information that relates to the quantity, technical

1 configuration, type, destination, or amount of use of  
 2 electric energy delivered to an electric consumer.

3 (3) The terms “electric consumer”, “electric  
 4 utility”, and “State regulatory authority” have the  
 5 meanings given such terms in section 3 of the Public  
 6 Utility Regulatory Policies Act of 1978 (16 U.S.C.  
 7 2602).

## 8 **Subtitle E—Renewable Energy and** 9 **Rural Construction Grants**

### 10 **SEC. 261. RENEWABLE ENERGY PRODUCTION INCENTIVE.**

11 (a) INCENTIVE PAYMENTS.—Section 1212(a) of the  
 12 Energy Policy Act of 1992 (42 U.S.C. 13317(a)) is  
 13 amended by striking “and which satisfies” and all that  
 14 follows through “Secretary shall establish.” and inserting  
 15 the following:

16 “. The Secretary shall establish other procedures nec-  
 17 essary for efficient administration of the program. The  
 18 Secretary shall not establish any criteria or procedures  
 19 that have the effect of assigning to proposals a higher or  
 20 lower priority for eligibility or allocation of appropriated  
 21 funds on the basis of the energy source proposed.”.

22 (b) QUALIFIED RENEWABLE ENERGY FACILITY.—  
 23 Section 1212 (b) of the Energy Policy Act of 1992 (42  
 24 U.S.C. 13317(b)) is amended—

1           (1) by striking “a State or any political” and  
2           all that follows through “nonprofit electrical cooper-  
3           ative” and inserting the following: “an electricity-  
4           generating cooperative exempt from taxation under  
5           section 501(c)(12) or section 1381(a)(2)(C) of the  
6           Internal Revenue Code of 1986, a public utility de-  
7           scribed in section 115 of such Code, a State, Com-  
8           monwealth, territory, or possession of the United  
9           States or the District of Columbia, or a political  
10          subdivision thereof, or an Indian tribal government  
11          or subdivision thereof,”; and

12          (2) by inserting “landfill gas, incremental hy-  
13          dropower, ocean” after “wind, biomass,”.

14          (c) ELIGIBILITY WINDOW.—Section 1212(c) of the  
15          Energy Policy Act of 1992 (42 U.S.C. 13317(c)) is  
16          amended by striking “during the 10–fiscal year period be-  
17          ginning with the first full fiscal year occurring after the  
18          enactment of this section” and inserting “before October  
19          1, 2013”.

20          (d) PAYMENT PERIOD.—Section 1212(d) of the En-  
21          ergy Policy Act of 1992 (42 U.S.C. 13317(d)) is amended  
22          by inserting “or in which the Secretary finds that all nec-  
23          essary Federal and State authorizations have been ob-  
24          tained to begin construction of the facility” after “eligible  
25          for such payments”.

1       (e) AMOUNT OF PAYMENT.—Section 1212(e)(1) of  
2 the Energy Policy Act of 1992 (42 U.S.C. 13317(e)(1))  
3 is amended by inserting “landfill gas, incremental hydro-  
4 power, ocean” after “wind, biomass,”.

5       (f) SUNSET.—Section 1212(f) of the Energy Policy  
6 Act of 1992 (42 U.S.C. 13317(f)) is amended by striking  
7 “the expiration of” and all that follows through “of this  
8 section” and inserting “September 30, 2023”.

9       (g) INCREMENTAL HYDROPOWER; AUTHORIZATION  
10 OF APPROPRIATIONS.—Section 1212 of the Energy Policy  
11 Act of 1992 (42 U.S.C. 13317) is further amended by  
12 striking subsection (g) and inserting the following:

13       “(g) INCREMENTAL HYDROPOWER.—

14               “(1) PROGRAMS.—Subject to subsection (h)(2),  
15 if an incremental hydropower program meets the re-  
16 quirements of this section, as determined by the Sec-  
17 retary, the incremental hydropower program shall be  
18 eligible to receive incentive payments under this sec-  
19 tion.

20               “(2) DEFINITION OF INCREMENTAL HYDRO-  
21 POWER.—In this subsection, the term ‘incremental  
22 hydropower’ means additional generating capacity  
23 achieved from increased efficiency or additions of  
24 new capacity at a hydroelectric facility in existence  
25 on the date of enactment of this paragraph.

1 “(h) AUTHORIZATION OF APPROPRIATIONS.—

2 “(1) IN GENERAL.—Subject to paragraph (2),  
3 there are authorized to be appropriated such sums  
4 as may be necessary to carry out this section for fis-  
5 cal years 2003 through 2023.

6 “(2) LIMITATION ON FUNDS USED FOR INCRE-  
7 MENTAL HYDROPOWER PROGRAMS.—Not more than  
8 30 percent of the amounts made available under  
9 paragraph (1) shall be used to carry out programs  
10 described in subsection (g)(2).

11 “(3) AVAILABILITY OF FUNDS.—Funds made  
12 available under paragraph (1) shall remain available  
13 until expended.”.

14 **SEC. 262. ASSESSMENT OF RENEWABLE ENERGY RE-**  
15 **SOURCES.**

16 (a) RESOURCE ASSESSMENT.—Not later than 3  
17 months after the date of enactment of this title, and each  
18 year thereafter, the Secretary of Energy shall review the  
19 available assessments of renewable energy resources avail-  
20 able within the United States, including solar, wind, bio-  
21 mass, ocean, geothermal, and hydroelectric energy re-  
22 sources, and undertake new assessments as necessary,  
23 taking into account changes in market conditions, avail-  
24 able technologies and other relevant factors.

1 (b) CONTENTS OF REPORTS.—Not later than one  
2 year after the date of enactment of this title, and each  
3 year thereafter, the Secretary shall publish a report based  
4 on the assessment under subsection (a). The report shall  
5 contain—

6 (1) a detailed inventory describing the available  
7 amount and characteristics of the renewable energy  
8 resources, and

9 (2) such other information as the Secretary of  
10 Energy believes would be useful in developing such  
11 renewable energy resources, including descriptions of  
12 surrounding terrain, population and load centers,  
13 nearby energy infrastructure, location of energy and  
14 water resources, and available estimates of the costs  
15 needed to develop each resource.

16 **SEC. 263. FEDERAL PURCHASE REQUIREMENT.**

17 (a) REQUIREMENT.—The President shall ensure  
18 that, of the total amount of electric energy the federal gov-  
19 ernment consumes during any fiscal year—

20 (1) not less than 3 percent in fiscal years 2003  
21 through 2004,

22 (2) not less than 5 percent in fiscal years 2005  
23 through 2009, and

24 (3) not less than 7.5 percent in fiscal year 2010  
25 and each fiscal year thereafter—

1 shall be renewable energy. The President shall encourage  
2 the use of innovative purchasing practices, including ag-  
3 gregation and the use of renewable energy derivatives, by  
4 federal agencies.

5 (b) DEFINITION.—For purposes of this section, the  
6 term “renewable energy” means electric energy generated  
7 from solar, wind, biomass, geothermal, fuel cells, or addi-  
8 tional hydroelectric generation capacity achieved from in-  
9 creased efficiency or additions of new capacity at an exist-  
10 ing hydroelectric dam.

11 (c) TRIBAL POWER GENERATION.—To the maximum  
12 extent practicable, the President shall ensure that not less  
13 than one-tenth of the amount specified in subsection (a)  
14 shall be renewable energy that is generated by an Indian  
15 tribe or by a corporation, partnership, or business associa-  
16 tion which is wholly or majority owned, directly or indi-  
17 rectly, by an Indian tribe. For purposes of this subsection,  
18 the term “Indian tribe” means any Indian tribe, band, na-  
19 tion, or other organized group or community, including  
20 any Alaska Native village or regional or village corporation  
21 as defined in or established pursuant to the Alaska Native  
22 Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
23 is recognized as eligible for the special programs and serv-  
24 ices provided by the United States to Indians because of  
25 their status as Indians.



1   **SEC. 264. RURAL CONSTRUCTION GRANTS.**

2       Section 313 of the Rural Electrification Act of 1936  
3   (7 U.S.C. 940c) is amended by adding after subsection  
4   (b) the following:

5       “(c) RURAL AND REMOTE COMMUNITIES ELEC-  
6   TRIFICATION GRANTS.—The Secretary of Agriculture, in  
7   consultation with the Secretary of Energy and the Sec-  
8   retary of the Interior, may provide grants to eligible bor-  
9   rowers under this Act for the purpose of increasing energy  
10   efficiency, siting or upgrading transmission and distribu-  
11   tion lines, or providing or modernizing electric facilities  
12   for—

13           “(1) a unit of local government of a State or  
14       territory; or

15           “(2) an Indian tribe or Tribal College or Uni-  
16       versity as defined in section 316(b)(3) of the Higher  
17       Education Act (20 U.S.C. 1059c(b)(3)).

18       “(d) GRANT CRITERIA.—The Secretary shall make  
19   grants based on a determination of cost-effectiveness and  
20   most effective use of the funds to achieve the stated pur-  
21   poses of this section.

22       “(e) PREFERENCE.—In making grants under this  
23   section, the Secretary shall give a preference to renewable  
24   energy facilities.

25       “(f) DEFINITION.—For purposes of this section, the  
26   term ‘Indian tribe’ means any Indian tribe, band, nation,

1 or other organized group or community, including any  
2 Alaska Native village or regional or village corporation as  
3 defined in or established pursuant to the Alaska Native  
4 Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
5 is recognized as eligible for the special programs and serv-  
6 ices provided by the United States to Indians because of  
7 their status as Indians;

8 “(g) AUTHORIZATION.—For the purpose of carrying  
9 out subsection (c), there are authorized to be appropriated  
10 to the Secretary \$20,000,000 for each of the seven fiscal  
11 years following the date of enactment of this subsection.”.

12 **SEC. 265. RENEWABLE PORTFOLIO STANDARD.**

13 Title VI of the Public Utility Regulatory Policies Act  
14 of 1978 is further amended by adding at the end the fol-  
15 lowing:

16 **“SEC. 606. FEDERAL RENEWABLE PORTFOLIO STANDARD.**

17 “(a) MINIMUM RENEWABLE GENERATION REQUIRE-  
18 MENT.—For each calendar year beginning with 2003, each  
19 retail electric supplier shall submit to the Secretary renew-  
20 able energy credits in an amount equal to the required  
21 annual percentage, specified in subsection (b), of the total  
22 electric energy sold by the retail electric supplier to electric  
23 consumers in the calendar year. The retail electric supplier  
24 shall make this submission before April 1 of the following  
25 calendar year.

1 “(b) REQUIRED ANNUAL PERCENTAGE.—

2 “(1) For calendar years 2003 and 2004, the re-  
3 quired annual percentage shall be determined by the  
4 Secretary in an amount less than the amount in  
5 paragraph (2).

6 “(2) For calendar year 2005 the required an-  
7 nual percentage shall be 2.5 percent of the retail  
8 electric supplier’s base amount.

9 “(3) For each calendar year from 2006 through  
10 2020, the required annual percentage of the retail  
11 electric supplier’s base amount shall be .5 percent  
12 greater than the required annual percentage for the  
13 calendar year immediately preceding.

14 “(c) SUBMISSION OF CREDITS.—(1) A retail electric  
15 supplier may satisfy the requirements of subsection (a)  
16 through the submission of—

17 “(A) renewable energy credits issued under sub-  
18 section (d) for renewable energy generated by the re-  
19 tail electric supplier in the calendar year for which  
20 credits are being submitted or any of the two pre-  
21 vious calendar years;

22 “(B) renewable energy credits obtained by pur-  
23 chase or exchange under subsection (e);

24 “(C) renewable energy credits borrowed against  
25 future years under subsection (f); or

1           “(D) any combination of credits under subpara-  
2           graphs (A), (B), and (C).

3           “(2) A credit may be counted toward compliance with  
4           subsection (a) only once.

5           “(d) ISSUANCE OF CREDITS.—(1) The Secretary  
6           shall establish, not later than one year after the date of  
7           enactment of this section, a program to issue, monitor the  
8           sale or exchange of, and track renewable energy credits.

9           “(2) Under the program, an entity that generates  
10          electric energy through the use of a renewable energy re-  
11          source may apply to the Secretary for the issuance of re-  
12          newable energy credits. The application shall indicate—

13               “(A) the type of renewable energy resource used  
14               to produce the electricity,

15               “(B) the location where the electric energy was  
16               produced, and

17               “(C) any other information the Secretary deter-  
18               mines appropriate.

19           “(3)(A) Except as provided in paragraphs (B) and  
20           (C), the Secretary shall issue to an entity one renewable  
21           energy credit for each kilowatt-hour of electric energy the  
22           entity generates in calendar year 2002 and any succeeding  
23           year through the use of a renewable energy resource at  
24           an eligible facility.

1       “(B) For incremental hydropower the credits shall be  
2     calculated based on a normalized annual capacity factor  
3     for each facility, and not actual generation. The calcula-  
4     tion of the credits for incremental hydropower shall not  
5     be based on any operational changes at the hydroelectric  
6     facility not directly associated with the efficiency improve-  
7     ments or capacity additions.

8       “(C) The Secretary shall issue two renewable energy  
9     credits for each kilowatt-hour of electric energy generated  
10    in calendar year 2002 and any succeeding year through  
11    the use of a renewable energy resource at an eligible facil-  
12    ity, if the generating facility is located on Indian land. For  
13    purposes of this paragraph, renewable energy generated  
14    by biomass cofired with other fuels is eligible for two cred-  
15    its only if the biomass was grown on the land eligible  
16    under this paragraph.

17       “(D) To be eligible for a renewable energy credit, the  
18    unit of electric energy generated through the use of a re-  
19    newable energy resource may be sold or may be used by  
20    the generator. If both a renewable energy resource and  
21    a non-renewable energy resource are used to generate the  
22    electric energy, the Secretary shall issue credits based on  
23    the proportion of the renewable energy resource used. The  
24    Secretary shall identify renewable energy credits by type  
25    and date of generation.

1       “(4) In order to receive a renewable energy credit,  
2 the recipient of a renewable energy credit shall pay a fee,  
3 calculated by the Secretary, in an amount that is equal  
4 to the administrative costs of issuing, recording, moni-  
5 toring the sale or exchange of, and tracking the credit.  
6 The Secretary shall retain the fee and use it to pay these  
7 administrative costs.

8       “(5) When a generator sells electric energy generated  
9 through the use of a renewable energy resource to a retail  
10 electric supplier under a contract subject to section 210  
11 of this Act, the retail electric supplier is treated as the  
12 generator of the electric energy for the purposes of this  
13 section for the duration of the contract.

14       “(e) CREDIT TRADING.—A renewable energy credit  
15 may be sold or exchanged by the entity to whom issued  
16 or by any other entity who acquires the credit. A renew-  
17 able energy credit for any year that is not used to satisfy  
18 the minimum renewable generation requirement of sub-  
19 section (a) for that year may be carried forward for use  
20 in another year.

21       “(f) CREDIT BORROWING.—At any time before the  
22 end of calendar year 2003, a retail electric supplier that  
23 has reason to believe that it will not have sufficient renew-  
24 able energy credits to comply with subsection (a) may—

1           “(1) submit a plan to the Secretary dem-  
2           onstrating that the retail electric supplier will earn  
3           sufficient credits within the next 3 calendar years  
4           which, when taken into account, will enable the re-  
5           tail electric supplier to meet the requirements of  
6           subsection (a) for calendar year 2003 and the cal-  
7           endar year involved; and

8           (2) upon the approval of the plan by the Sec-  
9           retary, apply credits that the plan demonstrates will  
10          be earned within the next 3 calendar years to meet  
11          the requirements of subsection (a) for each calendar  
12          year involved.

13          “(g) ENFORCEMENT.—The Secretary may bring an  
14          action in the appropriate United States district court to  
15          impose a civil penalty on a retail electric supplier that does  
16          not comply with subsection (a). A retail electric supplier  
17          who does not submit the required number of renewable  
18          energy credits under subsection (a) is subject to a civil  
19          penalty of not more than 3 cents each for the renewable  
20          energy credits not submitted. Any civil penalty collected  
21          under this subsection shall be retained by the Secretary  
22          and used to carry out the purposes of section 1212 of the  
23          Energy Policy Act of 1992 (42 U.S.C. 13317(a); relating  
24          to renewable energy production incentives).

1       “(h) INFORMATION COLLECTION.—The Secretary  
2 may collect the information necessary to verify and  
3 audit—

4               “(1) the annual electric energy generation and  
5 renewable energy generation of any entity applying  
6 for renewable energy credits under this section,

7               “(2) the validity of renewable energy credits  
8 submitted by a retail electric supplier to the Sec-  
9 retary, and

10              “(3) the quantity of electricity sales of all retail  
11 electric suppliers.

12       “(i) ENVIRONMENTAL SAVINGS CLAUSE.—Incre-  
13 mental hydropower shall be subject to all applicable envi-  
14 ronmental laws and licensing and regulatory requirements.

15       “(j) STATE SAVINGS CLAUSE.—This section does not  
16 preclude a State from requiring additional renewable en-  
17 ergy generation in that State.

18       “(k) DEFINITIONS.—For purposes of this section—

19               “(1) The term ‘eligible facility’ means—

20                       “(A) a facility for the generation of electric  
21 energy from a renewable energy resource that is  
22 placed in service on or after January 1, 2002;  
23 or

24                       “(B) a repowering or cofiring increment  
25 that is placed in service on or after January 1,



1           2002 at a facility for the generation of electric  
2           energy from a renewable energy resource that  
3           was placed in service before January 1, 2002.  
4   An eligible facility does not have to be inter-  
5   connected to the transmission or distribution system  
6   facilities of an electric utility.

7           “(2) The term ‘generation offset’ means re-  
8   duced electricity usage metered at a site where a  
9   customer consumes electricity from a renewable en-  
10   ergy technology.

11           “(3) The term ‘incremental hydropower’ means  
12   additional generation capacity achieved from in-  
13   creased efficiency or additions of capacity after Jan-  
14   uary 1, 2002 at a hydroelectric dam that was placed  
15   in service before January 1, 2002.

16           “(4) The term ‘Indian land’ means—

17                   “(A) any land within the limits of any In-  
18                   dian reservation, pueblo or rancharia,

19                   “(B) any land not within the limits of any  
20                   Indian reservation, pueblo or rancharia title to  
21                   which was on the date of enactment of this  
22                   paragraph either held by the United States for  
23                   the benefit of any Indian tribe or individual or  
24                   held by any Indian tribe or individual subject to

1 restriction by the United States against alien-  
2 ation,

3 “(C) any dependent Indian community,  
4 and

5 “(D) any land conveyed to any Alaska Na-  
6 tive corporation under the Alaska Native  
7 Claims Settlement Act.

8 “(5) The term ‘Indian tribe’ means any Indian  
9 tribe, band, nation, or other organized group or com-  
10 munity, including any Alaska Native village or re-  
11 gional or village corporation as defined in or estab-  
12 lished pursuant to the Alaska Native Claims Settle-  
13 ment Act (43 U.S.C. 1601 et seq.), which is recog-  
14 nized as eligible for the special programs and serv-  
15 ices provided by the United States to Indians be-  
16 cause of their status as Indians.

17 “(6) The term ‘renewable energy’ means elec-  
18 tric energy generated by a renewable energy re-  
19 source.

20 “(7) The term ‘renewable energy resource’  
21 means solar, wind, biomass, ocean, or geothermal  
22 energy, a generation offset, or incremental hydro-  
23 power facility.

24 “(8) The term ‘repowering or cofiring incre-  
25 ment’ means the additional generation from a modi-

1       fication that is placed in service on or after January  
2       1, 2002 to expand electricity production at a facility  
3       used to generate electric energy from a renewable  
4       energy resource or to cofire biomass that was placed  
5       in service before January 1, 2002.

6               “(9) The term ‘retail electric supplier’ means a  
7       person, State agency, or Federal agency that sells  
8       electric energy to electric consumers and sold not  
9       less than 500,000,000 kilowatt-hours of electric en-  
10      ergy to electric consumers for purposes other than  
11      resale during the preceding calendar year.

12              “(10) The term ‘retail electric supplier’s base  
13      amount’ means the total amount of electric energy  
14      sold by the retail electric supplier to electric cus-  
15      tomers during the most recent calendar year for  
16      which information is available, excluding electric en-  
17      ergy generated by a renewable energy resource, land-  
18      fill gas, or a hydroelectric facility.

19              “(l) SUNSET.—Subsection (a) of this section expires  
20      December 31, 2020.”.

21      **SEC. 266. RENEWABLE ENERGY ON FEDERAL LAND.**

22              (a) COST-SHARE DEMONSTRATION PROGRAM.—  
23      Within 12 months after the date of enactment of this sec-  
24      tion, the Secretaries of the Interior, Agriculture, and En-  
25      ergy shall develop guidelines for a cost-share demonstra-

1 tion program for the development of wind and solar energy  
2 facilities on Federal land.

3 (b) DEFINITION OF FEDERAL LAND.—As used in  
4 this section, the term “Federal land” means land owned  
5 by the United States that is subject to the operation of  
6 the mineral leasing laws; and is either—

7 (1) public land as defined in section 103(e) of  
8 the Federal Land Policy and Management Act of  
9 1976 (42 U.S.C. 1702(e)); or

10 (2) a unit of the National Forest System as  
11 that term is used in section 11(a) of the Forest and  
12 Rangeland Renewable Resources Planning Act of  
13 1974 (16 U.S.C. 1609(a)).

14 (c) RIGHTS-OF-WAY.—The demonstration program  
15 shall provide for the issuance of rights-of-way pursuant  
16 to the provisions of title V of the Federal Land Policy  
17 and Management Act of 1976 (43 U.S.C. 1761 et seq.)  
18 by the Secretary of the Interior with respect to Federal  
19 land under the jurisdiction of the Department of the Inte-  
20 rior, and by the Secretary of Agriculture with respect to  
21 federal lands under the jurisdiction of the Department of  
22 Agriculture.

23 (d) AVAILABLE SITES.—For purposes of this dem-  
24 onstration program, the issuance of rights-of-way shall be  
25 limited to areas—

1           (1) of high energy potential for wind or solar  
2       development;

3           (2) that have been identified by the wind or  
4       solar energy industry, through a process of nomina-  
5       tion, application, or otherwise, as being of particular  
6       interest to one or both industries;

7           (3) that are not located within roadless areas;

8           (4) where operation of wind or solar facilities  
9       would be compatible with the scenic, recreational,  
10      environmental, cultural, or historic values of the  
11      Federal land, and would not require the construction  
12      of new roads for the siting of lines or other trans-  
13      mission facilities; and

14          (5) where issuance of the right-of-way is con-  
15      sistent with the land and resource management  
16      plans of the relevant land management agencies.

17      (e) COST-SHARE PAYMENTS BY DOE.—The Sec-  
18      retary of Energy, in cooperation with the Secretary of the  
19      Interior with respect to Federal land under the jurisdic-  
20      tion of the Department of the Interior, and the Secretary  
21      of Agriculture with respect to Federal land under the ju-  
22      risdiction of the Department of Agriculture, shall deter-  
23      mine if the portion of a project on federal land is eligible  
24      for financial assistance pursuant to this section. Only  
25      those projects that are consistent with the requirements

1 of this section and further the purposes of this section  
2 shall be eligible. In the event a project is selected for finan-  
3 cial assistance, the Secretary of Energy shall provide no  
4 more than 15 percent of the costs of the project on the  
5 federal land, and the remainder of the costs shall be paid  
6 by non-Federal sources.

7 (f) REVISION OF LAND USE PLANS.—The Secretary  
8 of the Interior shall consider development of wind and  
9 solar energy, as appropriate, in revisions of land use plans  
10 under section 202 of the Federal Land Policy and Man-  
11 agement Act of 1976 (42 U.S.C. 1712); and the Secretary  
12 of Agriculture shall consider development of wind and  
13 solar energy, as appropriate, in revisions of land and re-  
14 source management plans under section 5 of the Forest  
15 and Rangeland Renewable Resources Planning Act of  
16 1974 (16 U.S.C. 1604). Nothing in this subsection shall  
17 preclude the issuance of a right-of-way for the develop-  
18 ment of a wind or solar energy project prior to the revision  
19 of a land use plan by the appropriate land management  
20 agency.

21 (g) REPORT TO CONGRESS.—Within 24 months after  
22 the date of enactment of this section, the Secretary of the  
23 Interior shall develop and report to Congress recommenda-  
24 tions on any statutory or regulatory changes the Secretary

1 believes would assist in the development of renewable en-  
2 ergy on Federal land. The report shall include—

3           (1) a five-year plan developed by the Secretary  
4           of the Interior, in cooperation with the Secretary of  
5           Agriculture, for encouraging the development of  
6           wind and solar energy on Federal land in an envi-  
7           ronmentally sound manner; and

8           (2) an analysis of—

9                   (A) whether the use of rights-of-ways is  
10                  the best means of authorizing use of Federal  
11                  land for the development of wind and solar en-  
12                  ergy, or whether such resources could be better  
13                  developed through a leasing system, or other  
14                  method;

15                  (B) the desirability of grants, loans, tax  
16                  credits or other provisions to promote wind and  
17                  solar energy development on Federal land; and

18                  (C) any problems, including environmental  
19                  concerns, which the Secretary of the Interior or  
20                  the Secretary of Agriculture have encountered  
21                  in managing wind or solar energy projects on  
22                  Federal land, or believe are likely to arise in re-  
23                  lation to the development of wind or solar en-  
24                  ergy on Federal land;

1           (3) a list, developed in consultation with the  
2       Secretaries of Energy and Defense, of lands under  
3       the jurisdiction of the Departments of Energy and  
4       Defense that would be suitable for development for  
5       wind or solar energy, and recommended statutory  
6       and regulatory mechanisms for such development;  
7       and

8           (4) an analysis, developed in consultation with  
9       the Secretaries of Energy and Commerce, of the po-  
10      tential for development of wind, solar, and ocean en-  
11      ergy on the Outer Continental Shelf, along with rec-  
12      ommended statutory and regulatory mechanisms for  
13      such development.

14       **TITLE III—HYDROELECTRIC**  
15       **RELICENSING**

16   **SEC. 301. ALTERNATIVE MANDATORY CONDITIONS AND**  
17       **FISHWAYS.**

18       (a) ALTERNATIVE MANDATORY CONDITIONS.—Sec-  
19      tion 4 of the Federal Power Act (16 U.S.C. 797) is  
20      amended by adding at the end the following:

21       “(h)(1) Whenever any person applies for a license for  
22      any project works within any reservation of the United  
23      States, and the Secretary of the department under whose  
24      supervision such reservation falls deems a condition to  
25      such license to be necessary under the first proviso of sub-



1 section (e), the license applicant or any other party to the  
2 licensing proceeding may propose an alternative condition.

3 “(2) Notwithstanding the first proviso of subsection  
4 (e), the Secretary of the department under whose super-  
5 vision the reservation falls shall accept the proposed alter-  
6 native condition referred to in paragraph (1), and the  
7 Commission shall include in the license such alternative  
8 condition, if the Secretary of the appropriate department  
9 determines, based on substantial evidence provided by the  
10 party proposing such alternative condition, that the alter-  
11 native condition—

12 “(A) provides no less protection for the reserva-  
13 tion than provided by the condition deemed nec-  
14 essary by the Secretary; and

15 “(B) will either—

16 “(i) cost less to implement, or

17 “(ii) result in improved operation of the  
18 project works for electricity production,

19 as compared to the condition deemed necessary by  
20 the Secretary.

21 “(3) Within 1 year after the enactment of this sub-  
22 section, each Secretary concerned shall, by rule, establish  
23 a process to expeditiously resolve conflicts arising under  
24 this subsection.”.

1       (b) ALTERNATIVE FISHWAYS.—Section 18 of the  
2 Federal Power Act (16 U.S.C. 811) is amended by—

3           (1) inserting “(a)” before the first sentence;

4       and

5           (2) adding at the end the following:

6       “(b)(1) Whenever the Commission shall require a li-  
7 censee to construct, maintain, or operate a fishway pre-  
8 scribed by the Secretary of the Interior or the Secretary  
9 of Commerce under this section, the licensee or any other  
10 party to the proceeding may propose an alternative to such  
11 prescription to construct, maintain, or operate a fishway.

12       “(2) Notwithstanding subsection (a), the Secretary of  
13 the Interior or the Secretary of Commerce, as appropriate,  
14 shall accept and prescribe, and the Commission shall re-  
15 quire, the proposed alternative referred to in paragraph  
16 (1), if the Secretary of the appropriate department deter-  
17 mines, based on substantial evidence provided by the party  
18 proposing such alternative, that the alternative—

19           “(A) will be no less effective than the fishway  
20 initially prescribed by the Secretary, and

21           “(B) will either—

22               “(i) cost less to implement, or

23               “(ii) result in improved operation of the  
24 project works for electricity production,

1 as compared to the fishway initially prescribed by  
2 the Secretary.

3 “(3) Within 1 year after the enactment of this sub-  
4 section, the Secretary of the Interior and the Secretary  
5 of Commerce shall each, by rule, establish a process to  
6 expeditiously resolve conflicts arising under this sub-  
7 section.”.

8 **SEC. 302. CHARGES FOR TRIBAL LANDS.**

9 Section 10(e)(1) of the Federal Power Act (16 U.S.C.  
10 803(e)(1) is amended by inserting after the second proviso  
11 the following:

12 “*Provided further*, That the Commission shall not  
13 issue a new or original license for projects involving  
14 tribal lands embraced within Indian reservations  
15 until annual charges required under this section  
16 have been fixed.”

17 **SEC. 303. DISPOSITION OF HYDROELECTRIC CHARGES.**

18 Section 17 of the Federal Power Act (16 U.S.C. 810)  
19 is further amended—

20 (1) by striking “to be expended under the direc-  
21 tion of the Secretary of the Army in the mainte-  
22 nance and operation of dams and other navigation  
23 structures owned by the United States or in the con-  
24 struction, maintenance, or operation of headwater or

1 other improvements of navigable waters of the  
2 United States.”; and

3 (2) by inserting in lieu thereof the following:  
4 “to be expended in the following manner on an an-  
5 nual basis: (A) fifty-percent of the funds shall be ex-  
6 pended by the Secretary of the Interior pursuant to  
7 a grant program to be established by the Secretary  
8 to support collaborative watershed restoration and  
9 education activities intended to promote the recovery  
10 of candidate, threatened, and endangered species  
11 under the Endangered Species Act of 1973; and (B)  
12 fifty-percent of the funds shall be expended by the  
13 Secretary of Agriculture, acting through the Chief of  
14 the Forest Service, for the Youth Conservation  
15 Corps program.”.

16 **SEC. 304. ANNUAL LICENSES.**

17 Section 15(a) of the Federal Power Act (16 U.S.C.  
18 808(a)) is amended by adding at the end the following:

19 “(4) Prior to issuing a fourth and subsequent  
20 annual license under paragraph (1), the Commission  
21 shall first consult with the Secretary of the Interior  
22 and the Secretary of Commerce, and if the project  
23 is within any reservation, with the Secretary under  
24 whose supervision such reservation falls.

1           “(5) Prior to issuing a fourth and subsequent  
2           annual license under paragraph (1), the Commission  
3           shall publish a written statement setting forth the  
4           reasons why the annual license is needed, and de-  
5           scribing the results of consultation with the Sec-  
6           retary of the Interior, the Secretary of Commerce,  
7           and the Secretary under whose supervision the res-  
8           ervation falls. Such explanation shall also contain  
9           the best judgment of the Commission as to whether  
10          the Commission anticipates issuing an additional an-  
11          nual license.

12           “(6) At least 60 days prior to expiration of the  
13          seventh and subsequent annual licenses issued under  
14          paragraph (1), the Commission shall submit to Con-  
15          gress the written statement required in paragraph  
16          (5).”.

17 **SEC. 305. ENFORCEMENT.**

18          (a) MONITORING AND INVESTIGATIONS OF MANDA-  
19          TORY CONDITIONS AND FISHWAY PRESCRIPTIONS.—The  
20          first sentence of section 31(a) of the Federal Power Act  
21          (16 U.S.C. 823b(a)) is amended to read as follows: “The  
22          Commission shall monitor and investigate compliance with  
23          each license and permit issued under this Part, each condi-  
24          tion imposed under section 4(e) or 4(h), each fishway pre-

1 scription imposed under section 18, and each exemption  
 2 granted from any requirement of this Part.”.

3 (b) COMPLIANCE ORDERS.—The third sentence of  
 4 section 31(a) of the Federal Power Act (16 U.S.C. 823(a))  
 5 is amended to read as follows: “After notice and oppor-  
 6 tunity for public hearing, the Commission may issue such  
 7 orders as necessary to require compliance with the terms  
 8 and conditions of licenses and permits issued under this  
 9 Part, with conditions imposed under section 4(e) or 4(h),  
 10 with fishway prescriptions imposed under section 18, and  
 11 with the terms and conditions of exemptions granted from  
 12 any requirement of this Part.”.

13 **SEC. 306. ESTABLISHMENT OF HYDROELECTRIC RELI-**  
 14 **CENSING PROCEDURES.**

15 (a) JOINT PROCEDURES OF THE COMMISSION AND  
 16 RESOURCE AGENCIES.—

17 (1) Within 18 months after the date of enact-  
 18 ment of this section, the Commission, the Secretary  
 19 of the Interior, the Secretary of Commerce, and the  
 20 Secretary of Agriculture, shall, after consultation  
 21 with the interested states and public review and  
 22 comment, issue coordinated regulations governing  
 23 the issuance of a license under section 15 of the  
 24 Federal Power Act (16 U.S.C. 808).

25 (2) Such regulations shall provide for—

1           (A) the participation of the Commission in  
2           the pre-application environmental scoping proc-  
3           ess conducted by the resource agencies pursu-  
4           ant to section 15(b) of the Federal Power Act  
5           (16 U.S.C. 808(b)), sufficient to allow the Com-  
6           mission and the resource agencies to coordinate  
7           environmental reviews and other regulatory pro-  
8           cedures of the Commission and the resource  
9           agencies under Part I of the Federal Power  
10          Act, and under the National Environmental  
11          Policy Act of 1969 (42 U.S.C. 4321 et seq.);

12          (B) issuance by the resource agencies of  
13          draft and final mandatory conditions under sec-  
14          tion 4(e) of the Federal Power Act (16 U.S.C.  
15          797(e)), and draft and final fishway prescrip-  
16          tions under section 18 of the Federal Power  
17          Act (16 U.S.C. 811);

18          (C) to the maximum extent possible, iden-  
19          tification by the Commission staff in the draft  
20          analysis of the license application conducted  
21          under the National Environmental Policy Act,  
22          of all license articles and license conditions the  
23          Commission is likely to include in the license;

24          (D) coordination by the Commission and  
25          the resource agencies of analysis under the Na-

1            tional Environmental Policy Act for final license  
2            articles and conditions recommended by Com-  
3            mission staff, and the final mandatory condi-  
4            tions and fishway prescriptions of the resource  
5            agencies;

6            (E) procedures for ensuring coordination  
7            and sharing, to the maximum extent possible, of  
8            information, studies, data and analysis by the  
9            Commission and the resource agencies to reduce  
10          the need for duplicative studies and analysis by  
11          license applicants and other parties to the li-  
12          cense proceeding; and

13          (F) procedures for ensuring resolution at  
14          an early stage of the process of the scope and  
15          type of reasonable and necessary information,  
16          studies, data, and analysis to be provided by the  
17          license applicant.

18          (b) PROCEDURES OF THE COMMISSION.—Within 18  
19          months after the date of enactment of this section, the  
20          Commission shall, after consultation with the interested  
21          federal agencies and states and after public comment and  
22          review, issue additional regulations governing the issuance  
23          of a license under section 15 of the Federal Power Act  
24          (16 U.S.C. 808). Such regulations shall—



1           (1) set a schedule for the Commission to  
2       issue—

3           (A) a tendering notice indicating that an  
4       application has been filed with the Commission;

5           (B) advanced notice to resource agencies of  
6       the issuance of the Ready for Environmental  
7       Analysis Notice requesting submission of rec-  
8       ommendations, conditions, prescriptions, and  
9       comments;

10          (C) a license decision after completion of  
11       environmental assessments or environmental  
12       impact statements prepared pursuant to the  
13       National Environmental Policy Act; and

14          (D) responses to petitions, motions, com-  
15       plaints and requests for rehearing;

16       (2) set deadlines for an applicant to conduct all  
17       needed resource studies in support of its license ap-  
18       plication;

19       (3) ensure a coordinated schedule for all major  
20       actions by the applicant, the Commission, affected  
21       Federal and State agencies, Indian Tribes and other  
22       parties, through final decision on the application;  
23       and

24       (4) provide for the adjustment of schedules if  
25       unavoidable delays occur.

1 **SEC. 307. RELICENSING STUDY.**

2 (a) IN GENERAL.—The Federal Energy Regulatory  
3 Commission shall, jointly with the Secretary of Commerce,  
4 the Secretary of the Interior, and the Secretary of Agri-  
5 culture, conduct a study of all new licenses issued for ex-  
6 isting projects under section 15 of the Federal Power Act  
7 (16 U.S.C. 808) since January 1, 1994.

8 (b) SCOPE.—The study shall analyze:

9 (1) the length of time the Commission has  
10 taken to issue each new license for an existing  
11 project;

12 (2) the additional cost to the licensee attrib-  
13 utable to new license conditions;

14 (3) the change in generating capacity attrib-  
15 utable to new license conditions;

16 (4) the environmental benefits achieved by new  
17 license conditions;

18 (5) significant unmitigated environmental dam-  
19 age of the project and costs to mitigate such dam-  
20 age; and

21 (6) litigation arising from the issuance or fail-  
22 ure to issue new licenses for existing projects under  
23 section 15 of the Federal Power Act or the imposi-  
24 tion or failure to impose new license conditions.

1 (c) DEFINITION.—As used in this section, the term  
2 “new license condition” means any condition imposed  
3 under—

4 (1) section 4(e) of the Federal Power Act (16  
5 U.S.C. 797(e)),

6 (2) section 10(a) of the Federal Power Act (16  
7 U.S.C. 803(a)),

8 (3) section 10(e) of the Federal Power Act (16  
9 U.S.C. 803(e)),

10 (4) section 10(j) of the Federal Power Act (16  
11 U.S.C. 803(j)),

12 (5) section 18 of the Federal Power Act (16  
13 U.S.C. 811), or

14 (6) section 401(d) of the Clean Water Act (33  
15 U.S.C. 1341(d)).

16 (d) CONSULTATION.—The Commission shall give in-  
17 terested persons and licensees an opportunity to submit  
18 information and views in writing.

19 (e) REPORT.—The Commission shall report its find-  
20 ings to the Committee on Energy and Natural Resources  
21 of the United States Senate and the Committee on Energy  
22 and Commerce of the House of Representatives not later  
23 than 24 months after the date of enactment of this sec-  
24 tion.

1 **SEC. 308. DATA COLLECTION PROCEDURES.**

2       Within 24 months after the date of enactment of this  
 3 section, the Federal Energy Regulatory Commission, the  
 4 Secretary of the Interior, the Secretary of Commerce, and  
 5 the Secretary of Agriculture shall jointly develop proce-  
 6 dures for ensuring complete and accurate information con-  
 7 cerning the time and cost to parties in the hydroelectric  
 8 licensing process under part I of the Federal Power Act  
 9 (16 U.S.C. 791 et seq.). Such data shall be published reg-  
 10 ularly, but no less frequently than every three years.

11 **TITLE IV—INDIAN ENERGY**

12 **SEC. 401. COMPREHENSIVE INDIAN ENERGY PROGRAM.**

13       Title XXVI of the Energy Policy Act of 1992 (25  
 14 U.S.C. 3501–3506) is amended by adding after section  
 15 2606 the following:

16 **“SEC. 2607. COMPREHENSIVE INDIAN ENERGY PROGRAM.**

17       “(a) DEFINITIONS.—For purposes of this section—

18               “(1) the term ‘Director’ means the Director of  
 19 the Office of Indian Energy Policy and Programs es-  
 20 tablished by section 217 of the Department of En-  
 21 ergy Organization Act, and

22               “(2) the term ‘Indian land’ means—

23                       “(A) any land within the limits of an In-  
 24 dian reservation, pueblo, or rancheria;

25                       “(B) any land not within the limits of an  
 26 Indian reservation, pueblo, or rancheria whose

1 title on the date of enactment of this section  
2 was held—

3 “(i) in trust by the United States for  
4 the benefit of an Indian tribe,

5 “(ii) by an Indian tribe subject to re-  
6 striction by the United States against  
7 alienation, or

8 “(iii) by a dependent Indian commu-  
9 nity; and

10 “(C) land conveyed to an Alaska Native  
11 Corporation under the Alaska Native Claims  
12 Settlement Act.

13 “(b) INDIAN ENERGY EDUCATION PLANNING AND  
14 MANAGEMENT ASSISTANCE.—

15 “(1) The Director shall establish programs  
16 within the Office of Indian Energy Policy and Pro-  
17 grams to assist Indian tribes in meeting their energy  
18 education, research and development, planning, and  
19 management needs.

20 “(2) The Director may make grants, on a com-  
21 petitive basis, to an Indian tribe for—

22 “(A) renewable energy, energy efficiency,  
23 and conservation programs;

1           “(B) studies and other activities sup-  
2           porting tribal acquisition of energy supplies,  
3           services, and facilities;

4           “(C) planning, constructing, developing,  
5           operating, maintaining, and improving tribal  
6           electrical generation, transmission, and dis-  
7           tribution facilities; and

8           “(D) developing, constructing, and inter-  
9           connecting electric power transmission facilities  
10          with transmission facilities owned and operated  
11          by a Federal power marketing agency or an  
12          electric utility that provides open access trans-  
13          mission service.

14          “(3) The Director may develop, in consultation  
15          with Indian tribes, a formula for making grants  
16          under this section. The formula may take into ac-  
17          count the following—

18               “(A) the total number of acres of Indian  
19               land owned by an Indian tribe;

20               “(B) the total number of households on  
21               the Indian tribe’s Indian land;

22               “(C) the total number of households on the  
23               Indian tribe’s Indian land that have no elec-  
24               tricity service or are under-served; and

1                   “(D) financial or other assets available to  
2                   the Indian tribe from any source.

3                   “(4) In making a grant under paragraph (2),  
4                   the Director shall give priority to an application re-  
5                   ceived from an Indian tribe that is not served or is  
6                   served inadequately by an electric utility, as that  
7                   term is defined in section 3(4) of the Public Utility  
8                   Regulatory Policies Act of 1978 (16 U.S.C.  
9                   2602(4)), or by a person, State agency, or any other  
10                  non-federal entity that owns or operates a local dis-  
11                  tribution facility used for the sale of electric energy  
12                  to an electric consumer.

13                  “(5) There are authorized to be appropriated to  
14                  the Department of Energy such sums as may be  
15                  necessary to carry out the purposes of this section.

16                  “(6) The Secretary is authorized to promulgate  
17                  such regulations as the Secretary determines to be  
18                  necessary to carry out the provisions of this sub-  
19                  section.

20                  “(c) LOAN GUARANTEE PROGRAM.—

21                  “(1) AUTHORITY.—The Secretary may guar-  
22                  antee not more than 90 percent of the unpaid prin-  
23                  cipal and interest due on any loan made to any In-  
24                  dian tribe for energy development, including the  
25                  planning, development, construction, and mainte-

1 nance of electrical generation plants, and for trans-  
2 mission and delivery mechanisms for electricity pro-  
3 duced on Indian land. A loan guaranteed under this  
4 subsection shall be made by—

5 “(A) a financial institution subject to the  
6 examination of the Secretary; or

7 “(B) an Indian tribe, from funds of the In-  
8 dian tribe, to another Indian tribe.

9 “(2) AVAILABILITY OF APPROPRIATIONS.—  
10 Amounts appropriated to cover the cost of loan  
11 guarantees shall be available without fiscal year limi-  
12 tation to the Secretary to fulfill obligations arising  
13 under this subsection.

14 “(3) AUTHORIZATION OF APPROPRIATIONS.—

15 “(A) There are authorized to be appro-  
16 priated to the Secretary such sums as may be  
17 necessary to cover the cost of loan guarantees,  
18 as defined by section 502(5) of the Federal  
19 Credit Reform Act of 1990 (2 U.S.C. 661a(5)).

20 “(B) There are authorized to be appro-  
21 priated to the Secretary such sums as may be  
22 necessary to cover the administrative expenses  
23 related to carrying out the loan guarantee pro-  
24 gram established by this subsection.



1           “(4) LIMITATION ON AMOUNT.—The aggregate  
2           outstanding amount guaranteed by the Secretary of  
3           Energy at any one time under this subsection shall  
4           not exceed \$2,000,000,000.

5           “(5) REGULATIONS.—The Secretary is author-  
6           ized to promulgate such regulations as the Secretary  
7           determines to be necessary to carry out the provi-  
8           sions of this subsection.

9           “(d) INDIAN ENERGY PREFERENCE.—(1) An agency  
10          or department of the United States Government may give,  
11          in the purchase of electricity, oil, gas, coal, or other energy  
12          product or by-product, preference in such purchase to an  
13          energy and resource production enterprise, partnership,  
14          corporation, or other type of business organization major-  
15          ity or wholly owned and controlled by a tribal government.

16          “(2) In implementing this subsection, an agency or  
17          department shall pay no more than the prevailing market  
18          price for the energy product or by-product and shall obtain  
19          no less than existing market terms and conditions.

20          “(e) EFFECT ON OTHER LAWS.—This section does  
21          not—

22                 “(1) limit the discretion vested in an Adminis-  
23                 trator of a Federal power marketing agency to mar-  
24                 ket and allocate Federal power, or

1           “(2) alter Federal laws under which a Federal  
2           power marketing agency markets, allocates, or pur-  
3           chases power.”.

4   **SEC. 402. OFFICE OF INDIAN ENERGY POLICY AND PRO-**  
5                           **GRAMS.**

6           Title II of the Department of Energy Organization  
7   Act is amended by adding at the end the following:

8           “OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

9           “SEC. 217. (a) There is established within the De-  
10   partment an Office of Indian Energy Policy and Pro-  
11   grams. This Office shall be headed by a Director, who  
12   shall be appointed by the Secretary and compensated at  
13   the rate equal to that of level IV of the Executive Schedule  
14   under section 5315 of Title 5, United States Code.

15          “(b) The Director shall provide, direct, foster, coordi-  
16   nate, and implement energy planning, education, manage-  
17   ment, conservation, and delivery programs of the Depart-  
18   ment that—

19                  “(1) promote tribal energy efficiency and utili-  
20                  zation;

21                  “(2) modernize and develop, for the benefit of  
22                  Indian tribes, tribal energy and economic infrastruc-  
23                  ture related to natural resource development and  
24                  electrification;

1           “(3) preserve and promote tribal sovereignty  
2           and self determination related to energy matters and  
3           energy deregulation;

4           “(4) lower or stabilize energy costs; and

5           “(5) electrify tribal members’ homes and tribal  
6           lands.

7           “(c) The Director shall carry out the duties assigned  
8           the Secretary or the Director under title XXVI of the En-  
9           ergy Policy Act of 1992 (25 U.S.C. 3501 et seq.).”.

10   **SEC. 403. CONFORMING AMENDMENTS.**

11           (a) AUTHORIZATION OF APPROPRIATIONS.—Section  
12   2603(c) of the Energy Policy Act of 1992 (25 U.S.C.  
13   3503(c)) is amended to read as follows:

14           “(c) AUTHORIZATION OF APPROPRIATIONS.—There  
15   are authorized to be appropriated such sums as may be  
16   necessary to carry out the purposes of this section.”.

17           (b) TABLE OF CONTENTS.—The Table of Contents  
18   of the Department of Energy Act is amended by inserting  
19   after the item relating to section 216 the following new  
20   item:

          “Sec. 217. Office of Indian Energy Policy and Programs.”.

21           (c) EXECUTIVE SCHEDULE.—Section 5315 of title 5,  
22   United States Code, is amended by inserting “Director,  
23   Office of Indian Energy Policy and Programs, Depart-  
24   ment of Energy.” after “Inspector General, Department  
25   of Energy.”.

1 **SEC. 404. SITING ENERGY FACILITIES ON TRIBAL LANDS.**

2 (a) DEFINITIONS.—For purposes of this section:

3 (1) INDIAN TRIBE.—The term “Indian tribe”  
4 means any Indian tribe, band, nation, or other orga-  
5 nized group or community, which is recognized as el-  
6 igible for the special programs and services provided  
7 by the United States to Indians because of their sta-  
8 tus as Indians, except that such term does not in-  
9 clude any Regional Corporation as defined in section  
10 3(g) of the Alaska Native Claims Settlement Act (43  
11 U.S.C. 1602(g)).

12 (2) INTERESTED PARTY.—The term “interested  
13 party” means a person whose interests could be ad-  
14 versely affected by the decision of an Indian tribe to  
15 grant a lease or right-of-way pursuant to this sec-  
16 tion.

17 (3) PETITION.—The term “petition” means a  
18 written request submitted to the Secretary for the  
19 review of an action (or inaction) of the Indian tribe  
20 that is claimed to be in violation of the approved  
21 tribal regulations;

22 (4) RESERVATION.—The term “reservation”  
23 means—

24 (A) with respect to a reservation in a State  
25 other than Oklahoma, all land that has been set  
26 aside or that has been acknowledged as having

1           been set aside by the United States for the use  
2           of an Indian tribe, the exterior boundaries of  
3           which are more particularly defined in a final  
4           tribal treaty, agreement, executive order, federal  
5           statute, secretarial order, or judicial determina-  
6           tion;

7           (B) with respect to a reservation in the  
8           State of Oklahoma, all land that is—

9                   (i) within the jurisdictional area of an  
10                  Indian tribe, and

11                   (ii) within the boundaries of the last  
12                  reservation of such tribe that was estab-  
13                  lished by treaty, executive order, or secre-  
14                  tarial order.

15           (5) SECRETARY.—The term “Secretary” means  
16           the Secretary of the Interior.

17           (6) TRIBAL LANDS.—The term “tribal lands”  
18           means any tribal trust lands or other lands owned  
19           by an Indian tribe that are within a reservation, or  
20           tribal trust lands located contiguous thereto.

21           (b) LEASES INVOLVING GENERATION, TRANS-  
22           MISSION, DISTRIBUTION OR ENERGY PROCESSING FA-  
23           CILITIES.—An Indian tribe may grant a lease of tribal  
24           land for electric generation, transmission, or distribution  
25           facilities, or facilities to process or refine renewable or

1 nonrenewable energy resources developed on tribal lands,  
2 and such leases shall not require the approval of the Sec-  
3 retary if the lease is executed under tribal regulations ap-  
4 proved by the Secretary under this subsection and the  
5 term of the lease does not exceed 30 years.

6 (c) RIGHTS-OF-WAY FOR ELECTRIC GENERATION,  
7 TRANSMISSION, DISTRIBUTION OR ENERGY PROCESSING  
8 FACILITIES.—An Indian tribe may grant a right-of-way  
9 over tribal lands for a pipeline or an electric transmission  
10 or distribution line without separate approval by the Sec-  
11 retary, if—

12 (1) the right-of-way is executed under and com-  
13 plies with tribal regulations approved by the Sec-  
14 retary and the term of the right-of-way does not ex-  
15 ceed 30 years; and

16 (2) the pipeline or electric transmission or dis-  
17 tribution line serves—

18 (A) an electric generation, transmission or  
19 distribution facility located on tribal land, or

20 (B) a facility located on tribal land that  
21 processes or refines renewable or nonrenewable  
22 energy resources developed on tribal lands.

23 (d) RENEWALS.—Leases or rights-of-way entered  
24 into under this subsection may be renewed at the discre-

1 tion of the Indian tribe in accordance with the require-  
2 ments of this section.

3 (e) TRIBAL REGULATION REQUIREMENTS.—

4 (1) The Secretary shall have the authority to  
5 approve or disapprove tribal regulations required  
6 under this subsection. The Secretary shall approve  
7 such tribal regulations if they are comprehensive in  
8 nature, including provisions that address—

9 (A) securing necessary information from  
10 the lessee or right-of-way applicant;

11 (B) term of the conveyance;

12 (C) amendments and renewals;

13 (D) consideration for the lease or right-of-  
14 way;

15 (E) technical or other relevant require-  
16 ments;

17 (F) requirements for environmental review  
18 as set forth in paragraph (3);

19 (G) requirements for complying with all  
20 applicable environmental laws; and

21 (H) final approval authority.

22 (2) No lease or right-of-way shall be valid un-  
23 less authorized in compliance with the approved trib-  
24 al regulations.

1           (3) An Indian tribe, as a condition of securing  
2       Secretarial approval as contemplated in paragraph  
3       (1), must establish an environmental review process  
4       that includes the following—

5           (A) an identification and evaluation of all  
6       significant environmental impacts of the pro-  
7       posed action as compared to a no action alter-  
8       native;

9           (B) identification of proposed mitigation;

10          (C) a process for ensuring that the public  
11       is informed of and has an opportunity to com-  
12       ment on the proposed action prior to tribal ap-  
13       proval of the lease or right-of-way; and

14          (D) sufficient administrative support and  
15       technical capability to carry out the environ-  
16       mental review process.

17       (4) The Secretary shall review and approve or  
18       disapprove the regulations of the Indian tribe within  
19       180 days of the submission of such regulations to  
20       the Secretary. Any disapproval of such regulations  
21       by the Secretary shall be accompanied by written  
22       documentation that sets forth the basis for the dis-  
23       approval. The 180-day period may be extended by  
24       the Secretary after consultation with the Indian  
25       tribe.



1           (5) If the Indian tribe executes a lease or right-  
2           of-way pursuant to tribal regulations required under  
3           this subsection, the Indian tribe shall provide the  
4           Secretary with—

5                   (A) a copy of the lease or right-of-way doc-  
6                   ument and all amendments and renewals there-  
7                   to; and

8                   (B) in the case of regulations or a lease or  
9                   right-of-way that permits payment to be made  
10                  directly to the Indian tribe, documentation of  
11                  the payments sufficient to enable the Secretary  
12                  to discharge the trust responsibility of the  
13                  United States as appropriate under existing  
14                  law.

15           (6) The United States shall not be liable for  
16           losses sustained by any party to a lease executed  
17           pursuant to tribal regulations under this subsection,  
18           including the Indian tribe.

19           (7)(A) An interested party may, after exhaus-  
20           tion of tribal remedies, submit, in a timely manner,  
21           a petition to the Secretary to review the compliance  
22           of the Indian tribe with any tribal regulations ap-  
23           proved under this subsection. If upon such review,  
24           the Secretary determines that the regulations were  
25           violated, the Secretary may take such action as may

1 be necessary to remedy the violation, including re-  
2 scinding or holding the lease or right-of-way in abey-  
3 ance until the violation is cured. The Secretary may  
4 also rescind the approval of the tribal regulations  
5 and reassume the responsibility for approval of  
6 leases or rights-of-way associated with the facilities  
7 addressed in this section.

8 (B) If the Secretary seeks to remedy a violation  
9 described in subparagraph (A), the Secretary shall—

10 (i) make a written determination with re-  
11 spect to the regulations that have been violated;

12 (ii) provide the Indian tribe with a written  
13 notice of the alleged violation together with  
14 such written determination; and

15 (iii) prior to the exercise of any remedy or  
16 the rescission of the approval of the regulations  
17 involved and reassumption of the lease or right-  
18 of-way approval responsibility, provide the In-  
19 dian tribe with a hearing and a reasonable op-  
20 portunity to cure the alleged violation.

21 (C) The tribe shall retain all rights to appeal as  
22 provided by regulations promulgated by the Sec-  
23 retary.

24 (f) AGREEMENTS.—

1           (1) Agreements between an Indian tribe and a  
2       business entity that are directly associated with the  
3       development of electric generation, transmission or  
4       distribution facilities, or facilities to process or refine  
5       renewable or nonrenewable energy resources devel-  
6       oped on tribal lands, shall not separately require the  
7       approval of the Secretary pursuant to section 18 of  
8       title 25, United States Code, so long as the activity  
9       that is the subject of the agreement has been the  
10      subject of an environmental review process pursuant  
11      to subsection (e) of this section.

12           (2) The United States shall not be liable for  
13      any losses or damages sustained by any party, in-  
14      cluding the Indian tribe, that are associated with an  
15      agreement entered into under this subsection.

16      (g) DISCLAIMER.—Nothing in this section is intended  
17      to modify or otherwise affect the applicability of any provi-  
18      sion of the Indian Mineral Leasing Act of 1938 (25 U.S.C.  
19      396a–396g); Indian Mineral Development Act of 1982 (25  
20      U.S.C. 2101–2108); Surface Mining Control and Rec-  
21      lamation Act of 1977 (30 U.S.C. 1201–1328); any amend-  
22      ments thereto; or any other laws not specifically addressed  
23      in this section.

1 **SEC. 405. INDIAN MINERAL DEVELOPMENT ACT REVIEW.**

2 (a) IN GENERAL.—The Secretary of the Interior shall  
3 conduct a review of the activities that have been conducted  
4 by the governments of Indian tribes under the authority  
5 of the Indian Mineral Development Act of 1982 (25  
6 U.S.C. 2101 et seq.).

7 (b) REPORT.—Not later than one year after the date  
8 of the enactment of this Act, the Secretary shall transmit  
9 to the Committee on Resources of the House of Represent-  
10 atives and the Committee on Indian Affairs and the Com-  
11 mittee on Energy and Natural Resources of the Senate  
12 a report containing—

13 (1) the results of the review;

14 (2) recommendations designed to help ensure  
15 that Indian tribes have the opportunity to develop  
16 their nonrenewable energy resources; and

17 (3) an analysis of the barriers to the develop-  
18 ment of energy resources on Indian land, including  
19 federal policies and regulations, and make rec-  
20 ommendations regarding the removal of those bar-  
21 riers.

22 (c) CONSULTATION.—The Secretary shall consult  
23 with Indian tribes on a government-to-government basis  
24 in developing the report and recommendations as provided  
25 in this subsection.

1 **SEC. 406. RENEWABLE ENERGY STUDY.**

2 (a) IN GENERAL.—Not later than 2 years after the  
3 date of the enactment of this Act, and once every 2 years  
4 thereafter, the Secretary of Energy shall transmit to the  
5 Committees on Energy and Commerce and Resources of  
6 the House of Representatives and the Committees on En-  
7 ergy and Natural Resources and Indian Affairs of the Sen-  
8 ate a report on energy consumption and renewable energy  
9 development potential on Indian land. The report shall  
10 identify barriers to the development of renewable energy  
11 by Indian tribes, including federal policies and regulations,  
12 and make recommendations regarding the removal of such  
13 barriers.

14 (b) CONSULTATION.—The Secretary shall consult  
15 with Indian tribes on a government-to-government basis  
16 in developing the report and recommendations as provided  
17 in this section.

18 **SEC. 407. FEDERAL POWER MARKETING ADMINISTRA-**  
19 **TIONS.**

20 Title XXVI of the Energy Policy Act of 1992 (25  
21 U.S.C. 3501) (as amended by section 201) is amended by  
22 adding the at the end of the following:

23 **“SEC. 2608. FEDERAL POWER MARKETING ADMINISTRA-**  
24 **TIONS.**

25 “(a) DEFINITION OF ADMINISTRATOR.—In this sec-  
26 tion, the term ‘Administrator’ means—

1           “(1) the Administrator of the Bonneville Power  
2 Administration; or

3           “(2) the Administrator of the Western Area  
4 Power Administration.

5           “(b) ASSISTANCE FOR TRANSMISSION STUDIES.—

6           “(1) Each Administrator may provide technical  
7 assistance to Indian tribes seeking to use the high-  
8 voltage transmission system for delivery of electric  
9 power. The costs of such technical assistance shall  
10 be funded—

11           “(A) by the Administrator using non-reim-  
12 bursable funds appropriated for this purpose, or

13           “(B) by the Indian tribe.

14           “(2) PRIORITY FOR ASSISTANCE FOR TRANS-  
15 MISSION STUDIES.—In providing discretionary as-  
16 sistance to Indian tribes under paragraph (1), each  
17 Administrator shall give priority in funding to In-  
18 dian tribes that have limited financial capability to  
19 conduct such studies.

20           “(c) POWER ALLOCATION STUDY.—

21           “(1) Not later than 2 years after the date of  
22 enactment of this Act, the Secretary of Energy shall  
23 transmit to the Committees on Energy and Com-  
24 merce and Resources of the House of Representa-  
25 tives and the Committees on Energy and Natural

1 Resources and Indian Affairs of the Senate a report  
2 on Indian tribes' utilization of federal power alloca-  
3 tions of the Western Area Power Administration, or  
4 power sold by the Southwestern Power Administra-  
5 tion, and the Bonneville Power Administration to or  
6 for the benefit of Indian tribes in their service areas.  
7 The report shall identify—

8 “(A) the amount of power allocated to  
9 tribes by the Western Area Power Administra-  
10 tion, and how the benefit of that power is uti-  
11 lized by the tribes;

12 “(B) the amount of power sold to tribes by  
13 other Power Marketing Administrations; and

14 “(C) existing barriers that impede tribal  
15 access to and utilization of federal power, and  
16 opportunities to remove such barriers and im-  
17 prove the ability of the Power Marketing Ad-  
18 ministration to facilitate the utilization of fed-  
19 eral power by Indian tribes.

20 “(2) The Power Marketing Administrations  
21 shall consult with Indian tribes on a government-to-  
22 government basis in developing the report provided  
23 in this section.

24 “(d) AUTHORIZATION FOR APPROPRIATION.—There  
25 are authorized to be appropriated to the Secretary of En-

1 ergy such sums as may be necessary to carry out the pur-  
2 poses of this section.”.

3 **SEC. 408. FEASIBILITY STUDY OF COMBINED WIND AND HY-**  
4 **DROPOWER DEMONSTRATION PROJECT.**

5 (a) STUDY.—The Secretary of Energy, in coordina-  
6 tion with the Secretary of the Army and the Secretary of  
7 the Interior, shall conduct a study of the cost and feasi-  
8 bility of developing a demonstration project that would use  
9 wind energy generated by Indian tribes and hydropower  
10 generated by the Army Corps of Engineers on the Mis-  
11 souri River to supply firming power to the Western Area  
12 Power Administration.

13 (b) SCOPE OF STUDY.—The study shall—

14 (1) determine the feasibility of the blending of  
15 wind energy and hydropower generated from the  
16 Missouri River dams operated by the Army Corps of  
17 Engineers;

18 (2) review historical purchase requirements and  
19 projected purchase requirements for firming and the  
20 patterns of availability and use of firming energy;

21 (3) assess the wind energy resource potential on  
22 tribal lands and projected cost savings through a  
23 blend of wind and hydropower over a thirty-year pe-  
24 riod;



1           (4) include a preliminary interconnection study  
2           and a determination of resource adequacy of the  
3           Upper Great Plains Region of the Western Area  
4           Power Administration;

5           (5) determine seasonal capacity needs and asso-  
6           ciated transmission upgrades for integration of tribal  
7           wind generation; and

8           (6) include an independent tribal engineer as a  
9           study team member.

10          (c) REPORT.—The Secretary of Energy and Sec-  
11       retary of the Army shall submit a report to Congress not  
12       later than one year after the date of enactment of this  
13       title. The Secretaries shall include in the report—

14           (1) an analysis of the potential energy cost sav-  
15       ings to the customers of the Western Area Power  
16       Administration through the blend of wind and hy-  
17       dropower;

18           (2) an evaluation of whether a combined wind  
19       and hydropower system can reduce reservoir fluctua-  
20       tion, enhance efficient and reliable energy production  
21       and provide Missouri River management flexibility;

22           (3) recommendations for a demonstration  
23       project which the Western Area Power Administra-  
24       tion could carry out in partnership with an Indian  
25       tribal government or tribal government energy con-

1        sortium to demonstrate the feasibility and potential  
2        of using wind energy produced on Indian lands to  
3        supply firming energy to the Western Area Power  
4        Administration or other Federal power marketing  
5        agency; and

6            (4) an identification of the economic and envi-  
7        ronmental benefits to be realized through such a fed-  
8        eral-tribal partnership and identification of how such  
9        a partnership could contribute to the energy security  
10       of the United States.

11       (d) CONSULTATION.—The Secretary shall consult  
12       with Indian tribes on a government-to-government basis  
13       in developing the report and recommendations provided in  
14       this section.

15       (e) AUTHORIZATION OF APPROPRIATIONS.—There  
16       are authorized to be appropriated \$500,000 to carry out  
17       this section, which shall remain available until expended.  
18       All costs incurred by the Western Area Power Administra-  
19       tion associated with performing the tasks required under  
20       this section shall be non-reimbursable.

1       **TITLE V—NUCLEAR POWER**  
2       **Subtitle A—Price-Anderson Act**  
3       **Reauthorization**

4       **SEC. 501. SHORT TITLE.**

5           This subtitle may be cited as the “Price-Anderson  
6   Amendments Act of 2002”.

7       **SEC. 502. EXTENSION OF DEPARTMENT OF ENERGY INDEM-**  
8                                   **NIFICATION AUTHORITY.**

9           Section 170 d.(1)(A) of the Atomic Energy Act of  
10   1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking  
11   “, until August 1, 2002,”.

12       **SEC. 503. DEPARTMENT OF ENERGY LIABILITY LIMIT.**

13           (a) INDEMNIFICATION OF DEPARTMENT OF ENERGY  
14   CONTRACTORS.—Section 170 d. of the Atomic Energy Act  
15   of 1954 (42 U.S.C. 2210(d)) is amended by striking para-  
16   graph (2) and inserting the following:

17                   “(2) In agreements of indemnification entered  
18   into under paragraph (1), the Secretary—

19                           “(A) may require the contractor to provide  
20                   and maintain financial protection of such a type  
21                   and in such amounts as the Secretary shall de-  
22                   termine to be appropriate to cover public liabil-  
23                   ity arising out of or in connection with the con-  
24                   tractual activity, and

1           “(B) shall indemnify the persons indem-  
2           nified against such claims above the amount of  
3           the financial protection required, in the amount  
4           of \$10,000,000,000 (subject to adjustment for  
5           inflation under subsection t.), in the aggregate,  
6           for all persons indemnified in connection with  
7           such contract and for each nuclear incident, in-  
8           cluding such legal costs of the contractor as are  
9           approved by the Secretary.”.

10       (b) CONTRACT AMENDMENTS.—Section 170 d. of the  
11   Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is further  
12   amended by striking paragraph (3) and inserting the fol-  
13   lowing:

14           “(3) All agreements of indemnification under  
15       which the Department of Energy (or its predecessor  
16       agencies) may be required to indemnify any person  
17       under this section shall be deemed to be amended,  
18       on the date of the enactment of the Price-Anderson  
19       Amendments Act of 2002, to reflect the amount of  
20       indemnity for public liability and any applicable fi-  
21       nancial protection required of the contractor under  
22       this subsection.”.

23       (c) LIABILITY LIMIT.—Section 170 e.(1)(B) of the  
24   Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(1)(B)) is

1 amended by striking “paragraph (3)” and inserting “para-  
2 graph (2)(B)”.

3 **SEC. 504. INCIDENTS OUTSIDE THE UNITED STATES.**

4 (a) AMOUNT OF INDEMNIFICATION.—Section 170  
5 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C.  
6 2210(d)(5)) is amended by striking “\$100,000,000” and  
7 inserting “\$500,000,000”.

8 (b) LIABILITY LIMIT.—Section 170 e.(4) of the  
9 Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is  
10 amended by striking “\$100,000,000” and inserting  
11 “\$500,000,000”.

12 **SEC. 505. REPORTS.**

13 Section 170 p. of the Atomic Energy Act of 1954 (42  
14 U.S.C. 2210(p)) is amended by striking “August 1, 1998”  
15 and inserting “August 1, 2008”.

16 **SEC. 506. INFLATION ADJUSTMENT.**

17 Section 170 t. of the Atomic Energy Act of 1954 (42  
18 U.S.C. 2210(t)) is amended—

19 (1) by renumbering paragraph (2) as paragraph  
20 (3); and

21 (2) by adding after paragraph (1) the following:

22 “(2) The Secretary shall adjust the amount of  
23 indemnification provided under an agreement of in-  
24 demnification under subsection d. not less than once  
25 during each 5-year period following July 1, 2002, in

1       accordance with the aggregate percentage change in  
2       the Consumer Price Index since—

3               “(A) such date of enactment, in the case  
4               of the first adjustment under this paragraph; or  
5               “(B) the previous adjustment under this  
6               paragraph.”.

7   **SEC. 507. CIVIL PENALTIES.**

8       (a) **REPEAL OF AUTOMATIC REMISSION.**—Section  
9   234A b.(2) of the Atomic Energy of 1954 (42 U.S.C.  
10 2282a(b)(2)) is amended by striking the last sentence.

11       (b) **LIMITATION FOR NOT-FOR-PROFIT INSTITU-**  
12 **TIONS.**—Subsection d. of section 234A of the Atomic En-  
13 ergy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read  
14 as follows:

15       “d. (1) Notwithstanding subsection a., a civil penalty  
16 for a violation under subsection a. shall not exceed the  
17 amount of the fee paid under the contract under which  
18 such violation occurs for any not-for-profit contractor,  
19 subcontractor, or supplier.

20       “(2) For purposes of this section, the term ‘not-for-  
21 profit’ means that no part of the net earnings of the con-  
22 tractor, subcontractor, or supplier inures, or may lawfully  
23 inure, to the benefit of any natural person or for-profit  
24 artificial person.”.

1       (c) EFFECTIVE DATE.—The amendments made by  
2 this section shall not apply to any violation of the Atomic  
3 Energy Act of 1954 occurring under a contract entered  
4 into before the date of enactment of this section.

5 **SEC. 508. EFFECTIVE DATE.**

6       The amendments made by sections 503(a) and 504  
7 shall not apply to any nuclear incident that occurs before  
8 the date of the enactment of this subtitle.

9                   **Subtitle B—Miscellaneous**  
10                   **Provisions**

11 **SEC. 511. URANIUM SALES.**

12       (a) INVENTORY SALES.—Section 3112(d) of the  
13 USEC Privatization Act (42 U.S.C. 2297h–10(d)) is  
14 amended to read as follows:

15       “(d) INVENTORY SALES.—(1) In addition to the  
16 transfers authorized under subsections (b), (c), and (e),  
17 the Secretary may, from time to time, sell or transfer ura-  
18 nium (including natural uranium concentrates, natural  
19 uranium hexafluoride, enriched uranium, and depleted  
20 uranium) from the Department of Energy’s stockpile.

21       “(2) Except as provided in subsections (b), (c), and  
22 (e), the Secretary may not deliver uranium in any form  
23 for consumption by end users in any year in excess of the  
24 following amounts:

**“Annual Maximum Deliveries to End Users**

<b>“Year:</b>	<b>Million lbs. U<sub>3</sub>O<sub>8</sub> equivalent:</b>
2003 through 2009 .....	3
2010 .....	5
2011 .....	5
2012 .....	7
2013 and each year thereafter .....	10.

1       “(3) Except as provided in subsections (b), (c), and  
2 (e), no sale or transfer of uranium in any form shall be  
3 made unless—

4               “(A) the President determines that the material  
5 is not necessary for national security needs;

6               “(B) the Secretary determines, based on the  
7 written views of the Secretary of State and the As-  
8 sistant to the President for National Security Af-  
9 fairs, that the sale or transfer will not adversely af-  
10 fect the national security interests of the United  
11 States;

12               “(C) the Secretary determines that the sale of  
13 the material will not have an adverse material im-  
14 pact on the domestic uranium mining, conversion, or  
15 enrichment industry, taking into account the sales of  
16 uranium under the Russian HEU Agreement and  
17 the Suspension Agreement; and

18               “(D) the price paid to the Secretary will not be  
19 less than the fair market value of the material.”.

20       (b) EXEMPT TRANSFERS AND SALES.—Section  
21 3112(e) of the USEC Privatization Act (42 U.S.C.  
22 2297h–10(e)) is amended to read as follows:



1       “(e) EXEMPT SALES OR TRANSFERS.—Notwith-  
2 standing subsection (d)(2), the Secretary may transfer or  
3 sell uranium—

4               “(1) to the Tennessee Valley Authority for use  
5 pursuant to the Department of Energy’s highly en-  
6 riched uranium or tritium program, to the extent  
7 provided by law;

8               “(2) to research and test reactors under the  
9 University Reactor Fuel Assistance and Support  
10 Program or the Reduced Enrichment for Research  
11 and Test Reactors Program;

12               “(3) to USEC Inc. to replace contaminated  
13 uranium received from the Department of Energy  
14 when the United States Enrichment Corporation  
15 was privatized;

16               “(4) to any person for emergency purposes in  
17 the event of a disruption in supply to end users in  
18 the United States; and

19               “(5) to any person for national security pur-  
20 poses, as determined by the Secretary.”.

21 **SEC. 512. REAUTHORIZATION OF THORIUM REIMBURSE-**  
22 **MENT.**

23       (a) REIMBURSEMENT OF THORIUM LICENSEES.—  
24 Section 1001(b)(2)(C) of the Energy Policy Act of 1992  
25 (42 U.S.C. 2296a) is amended—

1 (1) by striking “\$140,000,000” and inserting  
2 “\$365,000,000”; and

3 (2) by adding at the end the following: “Such  
4 payments shall not exceed the following amounts:

5 “(i) \$90,000,000 in fiscal year 2002.

6 “(ii) \$55,000,000 in fiscal year 2003.

7 “(iii) \$20,000,000 in fiscal year 2004.

8 “(iv) \$20,000,000 in fiscal year 2005.

9 “(v) \$20,000,000 in fiscal year 2006.

10 “(vi) \$20,000,000 in fiscal year 2007.

11 Any amounts authorized to be paid in a fiscal  
12 year under this subparagraph that are not paid  
13 in that fiscal year may be paid in subsequent  
14 fiscal years.”.

15 (b) AUTHORIZATION OF APPROPRIATIONS.—Section  
16 1003(a) of the Energy Policy Act of 1992 (42 U.S.C.  
17 2296a–2) is amended by striking “\$490,000,000” and in-  
18 serting “\$715,000,000”.

19 (c) DECONTAMINATION AND DECOMMISSIONING  
20 FUND.—Section 1802(a) of the Atomic Energy Act of  
21 1954 (42 U.S.C. 2297g–1(a)) is amended—

22 (1) by striking “\$488,333,333” and inserting  
23 “\$518,233,333”; and

1           (2) by inserting after “inflation” the following:  
2           “beginning on the date of enactment of the Energy  
3           Policy Act of 1992”.

4   **SEC. 513. FAST FLUX TEST FACILITY.**

5           The Secretary of Energy shall not reactivate the Fast  
6   Flux Test Facility to conduct—

- 7           (1) any atomic energy defense activity,  
8           (2) any space-related mission, or  
9           (3) any program for the production or utiliza-  
10          tion of nuclear material if the Secretary has deter-  
11          mined, in a record of decision, that the program can  
12          be carried out at existing operating facilities.

13   **DIVISION B—DOMESTIC OIL**  
14   **AND GAS PRODUCTION**  
15   **AND TRANSPORTATION**  
16   **TITLE VI—OIL AND GAS**  
17   **PRODUCTION**

18   **SEC. 601. PERMANENT AUTHORITY TO OPERATE THE STRA-**  
19   **TEGIC PETROLEUM RESERVE.**

20           (a) AMENDMENT TO TITLE I OF THE ENERGY POL-  
21   ICY AND CONSERVATION ACT.—Title I of the Energy Pol-  
22   icy and Conservation Act (42 U.S.C. 6211 et seq.) is  
23   amended—

- 24           (1) by striking section 166 (42 U.S.C. 6246)  
25          and inserting—

1       “SEC. 166. There are authorized to be appropriated  
2 to the Secretary such sums as may be necessary to carry  
3 out this part, to remain available until expended.”; and

4               (2) by striking part E (42 U.S.C. 6251; relat-  
5 ing to the expiration of title I of the Act) and its  
6 heading.

7       (b) AMENDMENT TO TITLE II OF THE ENERGY POL-  
8 ICY AND CONSERVATION ACT.—Title II of the Energy  
9 Policy and Conservation Act (42 U.S.C. 6271 et seq.) is  
10 amended—

11               (1) by striking section 256(h) (42 U.S.C.  
12 6276(h)) and inserting—

13       “(h) AUTHORIZATION OF APPROPRIATIONS.—There  
14 are authorized to be appropriated to the Secretary such  
15 sums as may be necessary to carry out this part, to remain  
16 available until expended.”.

17               (2) by striking section 273(e) (42 U.S.C.  
18 6283(e); relating to the expiration of summer fill  
19 and fuel budgeting programs); and

20               (3) by striking part D (42 U.S.C. 6285; relat-  
21 ing to the expiration of title II of the Act) and its  
22 heading.

23       (c) TECHNICAL AMENDMENTS.—The table of con-  
24 tents for the Energy Policy and Conservation Act is

1 amended by striking the items relating to part D of title  
2 I and part D of title II.

3 **SEC. 602. FEDERAL ONSHORE LEASING PROGRAMS FOR**  
4 **OIL AND GAS.**

5 (a) **TIMELY ACTION ON LEASES AND PERMITS.**—The  
6 Secretary of the Interior shall provide for the timely leas-  
7 ing of lands otherwise available for leasing for oil or gas  
8 production and timely action on applications for permits  
9 to drill under section 17 of the Mineral Leasing Act (30  
10 U.S.C. 226) on lands otherwise available for leasing. To  
11 ensure timely action on oil and gas leases and applications  
12 for permits to drill, the Secretary shall—

13 (1) ensure expeditious compliance with the re-  
14 quirements section 102(2)(C) of the National Envi-  
15 ronmental Policy Act of 1969 (42 U.S.C.  
16 4332(2)(C));

17 (2) improve consultation and coordination with  
18 the States;

19 (3) improve the collection, storage, and retrieval  
20 of information related to such leasing activities; and

21 (4) improve inspection and enforcement activi-  
22 ties related to oil and gas leases.

23 (b) **AUTHORIZATION OF APPROPRIATIONS.**—For the  
24 purpose of carrying out paragraphs (1) through (4) of  
25 subsection (a), there are authorized to be appropriated to

1 the Secretary of the Interior \$60,000,000 for each of the  
2 fiscal years 2003 through 2006, in addition to amounts  
3 otherwise authorized to be appropriated for the purpose  
4 of carrying out section 17 of the Mineral Leasing Act (30  
5 U.S.C. 226).

6 **SEC. 603. OIL AND GAS LEASE ACREAGE LIMITATIONS.**

7 Section 27(d)(1) of the Mineral Leasing Act (30  
8 U.S.C. 184(d)(1)) is amended by inserting after “acreage  
9 held in special tar sand areas” the following: “as well as  
10 acreage under any lease any portion of which has been  
11 committed to a Federally approved unit or cooperative  
12 plan or communitization agreement, or for which royalty,  
13 including compensatory royalty or royalty in kind, was  
14 paid in the preceding calendar year,”.

15 **SEC. 604. ORPHANED AND ABANDONED WELLS ON FED-**  
16 **ERAL LAND.**

17 (a) ESTABLISHMENT.—(1) The Secretary of the Inte-  
18 rior, in cooperation with the Secretary of Agriculture, shall  
19 establish a program to ensure within three years after the  
20 date of enactment of this Act, remediation, reclamation,  
21 and closure of orphaned oil and gas wells located on lands  
22 administered by the land management agencies within the  
23 Department of the Interior and the U.S. Forest Service  
24 that are—

25 (A) abandoned;

1 (B) orphaned; or

2 (C) idled for more than 5 years and having no  
3 beneficial use.

4 (2) The program shall include a means of ranking  
5 critical sites for priority in remediation based on potential  
6 environmental harm, other land use priorities, and public  
7 health and safety.

8 (3) The program shall provide that responsible par-  
9 ties be identified wherever possible and that the costs of  
10 remediation be recovered.

11 (4) In carrying out the program, the Secretary of the  
12 Interior shall work cooperatively with the Secretary of Ag-  
13 riculture and the states within which the federal lands are  
14 located, and shall consult with the Secretary of Energy,  
15 and the Interstate Oil and Gas Compact Commission.

16 (b) PLAN.—Within six months from the date of en-  
17 actment of this section, the Secretary of the Interior, in  
18 cooperation with the Secretary of Agriculture, shall pre-  
19 pare a plan for carrying out the program established  
20 under subsection (a). Copies of the plan shall be trans-  
21 mitted to the Committee on Energy and Natural Re-  
22 sources of the Senate and the Committee on Resources  
23 of the House of Representatives.

24 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
25 are authorized to be appropriated to the Secretary of the

1 Interior \$5,000,000 for each of fiscal years 2003 through  
2 2005 to carry out the activities provided for in this sec-  
3 tion.

4 **SEC. 605. ORPHANED AND ABANDONED OIL AND GAS WELL**  
5 **PROGRAM.**

6 (a) ESTABLISHMENT.—The Secretary of Energy  
7 shall establish a program to provide technical assistance  
8 to the various oil and gas producing states to facilitate  
9 state efforts over a ten-year period to ensure a practical  
10 and economical remedy for environmental problems caused  
11 by orphaned and abandoned exploration or production well  
12 sites on state and private lands. The Secretary shall work  
13 with the states, through the Interstate Oil and Gas Com-  
14 pact Commission, to assist the states in quantifying and  
15 mitigating environmental risks of onshore abandoned and  
16 orphaned wells on state and private lands.

17 (b) PROGRAM ELEMENTS.—The program should  
18 include—

19 (1) mechanisms to facilitate identification of re-  
20 sponsible parties wherever possible;

21 (2) criteria for ranking critical sites based on  
22 factors such as other land use priorities, potential  
23 environmental harm and public visibility; and

24 (3) information and training programs on best  
25 practices for remediation of different types of sites.



1       (c) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to the Secretary of En-  
3 ergy for the activities under this section \$5,000,000 for  
4 each of fiscal years 2003 through 2005 to carry out the  
5 provisions of this section.

6 **SEC. 606. OFFSHORE DEVELOPMENT.**

7       Section 5 of the Outer Continental Shelf Lands Act  
8 of 1953 (43 U.S.C. 1334) is amended by adding at the  
9 end the following:

10       “(k) SUSPENSION OF OPERATIONS FOR SUBSALT  
11 EXPLORATION.—Notwithstanding any other provision of  
12 law or regulation, the Secretary may grant a request for  
13 a suspension of operations under any lease to allow the  
14 lessee to reprocess or reinterpret geologic or geophysical  
15 data beneath allocthonous salt sheets, when in the Sec-  
16 retary’s judgment such suspension is necessary to prevent  
17 waste caused by the drilling of unnecessary wells, and to  
18 maximize ultimate recovery of hydrocarbon resources  
19 under the lease. Such suspension shall be limited to the  
20 minimum period of time the Secretary determines is nec-  
21 essary to achieve the objectives of this subsection.”.

22 **SEC. 607. COALBED METHANE STUDY.**

23       (a) STUDY.—The National Academy of Sciences shall  
24 conduct a study on the effects of coalbed methane produc-  
25 tion on surface and water resources.

1 (b) DATA ANALYSIS.—The study shall analyze avail-  
2 able hydrogeologic and water quality data, along with  
3 other pertinent environmental or other information to  
4 determine—

5 (1) adverse effects associated with surface or  
6 subsurface disposal of waters produced during ex-  
7 traction of coalbed methane;

8 (2) depletion of groundwater aquifers or drink-  
9 ing water sources associated with production of coal-  
10 bed methane;

11 (3) any other significant adverse impacts to  
12 surface or water resources associated with produc-  
13 tion of coalbed methane; and

14 (4) production techniques or other factors that  
15 can mitigate adverse impacts from coalbed methane  
16 development.

17 (c) RECOMMENDATIONS.—The study shall analyze  
18 existing Federal and State laws and regulations, and make  
19 recommendations as to changes, if any, to Federal law  
20 necessary to address adverse impacts to surface or water  
21 resources attributable to coalbed methane development.

22 (d) COMPLETION OF STUDY.—The National Acad-  
23 emy of Sciences shall submit the study to the Secretary  
24 of the Interior within 18 months after the date of enact-

1 ment of this Act, and shall make the study available to  
2 the public at the same time.

3 (e) REPORT TO CONGRESS.—The Secretary of the In-  
4 terior shall report to Congress within 6 months of her re-  
5 ceipt of the study on—

6 (1) the findings and recommendations of the  
7 study;

8 (2) the Secretary's agreement or disagreement  
9 with each of its findings and recommendations; and

10 (3) any recommended changes in funding to ad-  
11 dress the effects of coalbed methane production on  
12 surface and water resources.

13 **SEC. 608. FISCAL POLICIES TO MAXIMIZE RECOVERY OF**  
14 **DOMESTIC OIL AND GAS RESOURCES.**

15 (a) EVALUATION.—The Secretary of Energy, in co-  
16 ordination with the Secretaries of the Interior, Commerce,  
17 and Treasury, Indian tribes and the Interstate Oil and  
18 Gas Compact Commission, shall evaluate the impact of ex-  
19 isting Federal and State tax and royalty policies on the  
20 development of domestic oil and gas resources and on reve-  
21 nues to Federal, State, local and tribal governments.

22 (b) SCOPE.—The evaluation under subsection (a)  
23 shall—

24 (1) analyze the impact of fiscal policies on oil  
25 and natural gas exploration, development drilling,

1 and production under different price scenarios, in-  
2 cluding the impact of the individual and corporate  
3 Alternative Minimum Tax, state and local produc-  
4 tion taxes and fixed royalty rates during low price  
5 periods;

6 (2) assess the effect of existing federal and  
7 state fiscal policies on investment under different ge-  
8 ological and developmental circumstances, including  
9 but not limited to deepwater environments, subsalt  
10 formations, deep and deviated wells, coalbed meth-  
11 ane and other unconventional oil and gas forma-  
12 tions;

13 (3) assess the extent to which federal and state  
14 fiscal policies negatively impact the ultimate recovery  
15 of resources from existing fields and smaller accu-  
16 mulations in offshore waters, especially in water  
17 depths less than 800 meters, of the Gulf of Mexico;

18 (4) compare existing federal and state policies  
19 with tax and royalty regimes in other countries with  
20 particular emphasis on similar geological, develop-  
21 mental and infrastructure conditions; and

22 (5) evaluate how alternative tax and royalty  
23 policies, including counter-cyclical measures, could  
24 increase recovery of domestic oil and natural gas re-

1 sources and revenues to Federal, State, local and  
2 tribal governments.

3 (c) POLICY RECOMMENDATIONS.—Based upon the  
4 findings of the evaluation under subsection (a), a report  
5 describing the findings and recommendations for policy  
6 changes shall be provided to the President, the Congress,  
7 the Governors of the member states of the Interstate Oil  
8 and Gas Compact Commission, and Indian tribes having  
9 an oil and gas lease approved by the Secretary of the Inte-  
10 rior. The recommendations should ensure that the public  
11 interest in receiving the economic benefits of tax and roy-  
12 alty revenues is balanced with the broader national secu-  
13 rity and economic interests in maximizing recovery of do-  
14 mestic resources. The report should include recommenda-  
15 tions regarding actions to—

16 (1) ensure stable development drilling during  
17 periods of low oil and/or natural gas prices to main-  
18 tain reserve replacement and deliverability;

19 (2) minimize the negative impact of a volatile  
20 investment climate on the oil and gas service indus-  
21 try and domestic oil and gas exploration and produc-  
22 tion;

23 (3) ensure a consistent level of domestic activity  
24 to encourage the education and retention of a tech-  
25 nical workforce; and

1           (4) maintain production capability during peri-  
2       ods of low oil and/or natural gas prices.

3       (d) ROYALTY GUIDELINES.—The recommendations  
4       required under (c) should include guidelines for private re-  
5       source holders as to the appropriate level of royalties given  
6       geology, development cost, and the national interest in  
7       maximizing recovery of oil and gas resources.

8       (e) REPORT.—The study under subsection (a) shall  
9       be completed not later than 18 months after the date of  
10      enactment of this section. The report and recommenda-  
11      tions required in (c) shall be transmitted to the President,  
12      the Congress, Indian tribes, and the Governors of the  
13      member States of the Interstate Oil and Gas Compact  
14      Commission.

15   **SEC. 609. STRATEGIC PETROLEUM RESERVE.**

16      (a) FULL CAPACITY.—The President shall—

17           (1) fill the Strategic Petroleum Reserve estab-  
18      lished pursuant to part B of title I of the Energy  
19      Policy and Conservation Act (42 U.S.C. 6231 et  
20      seq.) to full capacity as soon as practicable;

21           (2) acquire petroleum for the Strategic Petro-  
22      leum Reserve by the most practicable and cost-effec-  
23      tive means, including the acquisition of crude oil the  
24      United States is entitled to receive in kind as royal-  
25      ties from production on Federal lands; and

1           (3) ensure that the fill rate minimizes impacts  
2           on petroleum markets.

3           (b) RECOMMENDATIONS.—Not later than 180 days  
4 after the date of enactment of this Act, the Secretary of  
5 Energy shall submit to Congress a plan to—

6           (1) eliminate any infrastructure impediments  
7           that may limit maximum drawdown capability; and

8           (2) determine whether the capacity of the Stra-  
9           tegic Petroleum Reserve on the date of enactment of  
10 this section is adequate in light of the increasing  
11 consumption of petroleum and the reliance on im-  
12 ported petroleum.

13           **TITLE VII—NATURAL GAS**  
14           **PIPELINES**  
15           **Subtitle A—Alaska Natural Gas**  
16           **Pipeline**

17   **SEC. 701. SHORT TITLE.**

18           This subtitle may be cited as the “Alaska Natural  
19 Gas Pipeline Act of 2002”.

20   **SEC. 702. FINDINGS.**

21           The Congress finds that:

22           (1) Construction of a natural gas pipeline sys-  
23 tem from the Alaskan North Slope to United States  
24 markets is in the national interest and will enhance  
25 national energy security by providing access to the

1 significant gas reserves in Alaska needed to meet the  
2 anticipated demand for natural gas.

3 (2) The Commission issued a certificate of pub-  
4 lic convenience and necessity for the Alaska Natural  
5 Gas Transportation System, which remains in effect.

6 **SEC. 703. PURPOSES.**

7 The purposes of this subtitle are—

8 (1) to expedite the approval, construction, and  
9 initial operation of one or more transportation sys-  
10 tems for the delivery of Alaska natural gas to the  
11 contiguous United States;

12 (2) to ensure access to such transportation sys-  
13 tems on an equal and nondiscriminatory basis and  
14 to promote competition in the exploration, develop-  
15 ment and production of Alaska natural gas; and

16 (3) to provide federal financial assistance to  
17 any transportation system for the transport of Alas-  
18 ka natural gas to the contiguous United States, for  
19 which an application for a certificate of public con-  
20 venience and necessity is filed with the Commission  
21 not later than 6 months after the date of enactment  
22 of this subtitle.



1 **SEC. 704. ISSUANCE OF CERTIFICATE OF PUBLIC CONVEN-**  
2 **IENCE AND NECESSITY.**

3 (a) AUTHORITY OF THE COMMISSION.—Notwith-  
4 standing the provisions of the Alaska Natural Gas Trans-  
5 portation Act of 1976 (15 U.S.C. 719–719o), the Commis-  
6 sion may, pursuant to section 7(c) of the Natural Gas Act  
7 (15 U.S.C. 717f(c)), consider and act on an application  
8 for the issuance of a certificate of public convenience and  
9 necessity authorizing the construction and operation of an  
10 Alaska natural gas transportation project other than the  
11 Alaska Natural Gas Transportation System.

12 (b) ISSUANCE OF CERTIFICATE.—

13 (1) The Commission shall issue a certificate of  
14 public convenience and necessity authorizing the  
15 construction and operation of an Alaska natural gas  
16 transportation project under this section if the appli-  
17 cant has—

18 (A) entered into a contract to transport  
19 Alaska natural gas through the proposed Alas-  
20 ka natural gas transportation project for use in  
21 the contiguous United States; and

22 (B) satisfied the requirements of section  
23 7(e) of the Natural Gas Act (15 U.S.C.  
24 717f(e)).

25 (2) In considering an application under this  
26 section, the Commission shall presume that—

1           (A) a public need exists to construct and  
2           operate the proposed Alaska natural gas trans-  
3           portation project; and

4           (B) sufficient downstream capacity will  
5           exist to transport the Alaska natural gas mov-  
6           ing through such project to markets in the con-  
7           tiguous United States.

8       (c) EXPEDITED APPROVAL PROCESS.—The Commis-  
9       sion shall issue a final order granting or denying any ap-  
10      plication for a certificate of public and convenience and  
11      necessity under section 7(c) of the Natural Gas Act (15  
12      U.S.C. 717f(c)) and this section not more than 60 days  
13      after the issuance of the final environmental impact state-  
14      ment for that project pursuant to section 704.

15      (d) REVIEWS AND ACTIONS OF OTHER FEDERAL  
16      AGENCIES.—All reviews conducted and actions taken by  
17      any federal officer or agency relating to an Alaska natural  
18      gas transportation project authorized under this section  
19      shall be expedited, in a manner consistent with completion  
20      of the necessary reviews and approvals by the deadlines  
21      set forth in this subtitle.

22      (e) REGULATIONS.—The Commission may issue reg-  
23      ulations to carry out the provisions of this section.

1 **SEC. 705. ENVIRONMENTAL REVIEWS.**

2 (a) COMPLIANCE WITH NEPA.—The issuance of a  
3 certificate of public convenience and necessity authorizing  
4 the construction and operation of any Alaska natural gas  
5 transportation project under section 704 shall be treated  
6 as a major federal action significantly affecting the quality  
7 of the human environment within the meaning of section  
8 102(2)(C) of the National Environmental Policy Act of  
9 1969 (42 U.S.C. 4332(2)(C)).

10 (b) DESIGNATION OF LEAD AGENCY.—The Commis-  
11 sion shall be the lead agency for purposes of complying  
12 with the National Environmental Policy Act of 1969, and  
13 shall be responsible for preparing the statement required  
14 by section 102(2)(c) of that Act (42 U.S.C. 4332(2)(c))  
15 with respect to an Alaska natural gas transportation  
16 project under section 704. The Commission shall prepare  
17 a single environmental statement under this section, which  
18 shall consolidate the environmental reviews of all Federal  
19 agencies considering any aspect of the project.

20 (c) OTHER AGENCIES.—All Federal agencies consid-  
21 ering aspects of the construction and operation of an Alas-  
22 ka natural gas transportation project section 704 shall co-  
23 operate with the Commission, and shall comply with dead-  
24 lines established by the Commission in the preparation of  
25 the statement under this section. The statement prepared  
26 under this section shall be used by all such agencies to

1 satisfy their responsibilities under section 102(2)(C) of the  
2 National Environmental Policy Act of 1969 (42 U.S.C.  
3 4332(2)(C)) with respect to such project.

4 (d) EXPEDITED PROCESS.—The Commission shall  
5 issue a draft statement under this section not later than  
6 12 months after the Commission determines the applica-  
7 tion to be complete and shall issue the final statement not  
8 later than 6 months after the Commission issues the draft  
9 statement, unless the Commission for good cause finds  
10 that additional time is needed.

11 (e) UPDATED ENVIRONMENTAL REVIEWS UNDER  
12 ANGTA.—The Secretary of Energy shall require the  
13 sponsor of the Alaska Natural Gas Transportation System  
14 to submit such updated environmental data, reports, per-  
15 mits, and impact analyses as the Secretary determines are  
16 necessary to develop detailed terms, conditions, and com-  
17 pliance plans required by section 5 of the President’s Deci-  
18 sion.

19 **SEC. 706. FEDERAL COORDINATOR.**

20 (a) ESTABLISHMENT.—There is established as an  
21 independent establishment in the executive branch, the Of-  
22 fice of the Federal Coordinator for Alaska Natural Gas  
23 Transportation Projects.

1 (b) THE FEDERAL COORDINATOR.—The Office shall  
2 be headed by a Federal Coordinator for Alaska Natural  
3 Gas Transportation Projects, who shall—

4 (1) be appointed by the President, by and with  
5 the advice of the Senate,

6 (2) hold office at the pleasure of the President,  
7 and

8 (3) be compensated at the rate prescribed for  
9 level III of the Executive Schedule (5 U.S.C. 5314).

10 (c) DUTIES.—The Federal Coordinator shall be re-  
11 sponsible for—

12 (1) coordinating the expeditious discharge of all  
13 activities by federal agencies with respect to an Alas-  
14 ka natural gas transportation project; and

15 (2) ensuring the compliance of Federal agencies  
16 with the provisions of this subtitle.

17 **SEC. 707. JUDICIAL REVIEW.**

18 (a) EXCLUSIVE JURISDICTION.—The United States  
19 Court of Appeals for the District of Columbia Circuit shall  
20 have exclusive jurisdiction to determine—

21 (1) the validity of any final order or action (in-  
22 cluding a failure to act) of the Commission under  
23 this subtitle;

1           (2) the constitutionality of any provision of this  
2 subtitle, or any decision made or action taken there-  
3 under; or

4           (3) the adequacy of any environmental impact  
5 statement prepared under the National Environ-  
6 mental Policy Act of 1969 with respect to any action  
7 under this subtitle.

8       (b) DEADLINE FOR FILING CLAIM.—Claims arising  
9 under this subtitle may be brought not later than 60 days  
10 after the date of the decision or action giving rise to the  
11 claim.

12 **SEC. 708. LOAN GUARANTEE.**

13       (a) AUTHORITY.—The Secretary of Energy may  
14 guarantee not more than 80 percent of the principal of  
15 any loan made to the holder of a certificate of public con-  
16 venience and necessity issued under section 704(b) of this  
17 Act or section 9 of the Alaska Natural Gas Transportation  
18 Act of 1976 (15 U.S.C. 719g) for the purpose of con-  
19 structing an Alaska natural gas transportation project.

20       (b) CONDITIONS.—

21           (1) The Secretary of Energy may not guarantee  
22 a loan under this section unless the guarantee has  
23 filed an application for a certificate of public conven-  
24 ience and necessity under section 704(b) of this Act  
25 or for an amended certificate under section 9 of the

1 Alaska Natural Gas Transportation Act of 1976 (15  
2 U.S.C. 719g) with the Commission not later than 6  
3 months after the date of enactment of this subtitle.

4 (2) A loan guaranteed under this section shall  
5 be made by a financial institution subject to the ex-  
6 amination of the Secretary.

7 (3) Loan requirements, including term, max-  
8 imum size, collateral requirements and other fea-  
9 tures shall be determined by the Secretary.

10 (c) LIMITATION ON AMOUNT.—Commitments to  
11 guarantee loans may be made by the Secretary of Energy  
12 only to the extent that the total loan principal, any part  
13 of which is guaranteed, will not exceed \$10,000,000,000.

14 (d) REGULATIONS.—The Secretary of Energy may  
15 issue regulations to carry out the provisions of this sec-  
16 tion.

17 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to the Secretary such  
19 sums as may be necessary to cover the cost of loan guaran-  
20 tees, as defined by section 502(5) of the Federal Credit  
21 Reform Act of 1990 (2 U.S.C. 661a(5)).

22 **SEC. 709. STUDY OF ALTERNATIVE MEANS OF CONSTRUC-**  
23 **TION.**

24 (a) REQUIREMENT OF STUDY.—If no application for  
25 the issuance of a certificate of public convenience and ne-

1   cessity authorizing the construction and operation of an  
2   Alaska natural gas transportation project has been filed  
3   with the Commission within 6 months after the date of  
4   enactment of this title, the Secretary of Energy shall con-  
5   duct a study of alternative approaches to the construction  
6   and operation of the project.

7       (b) SCOPE OF STUDY.—The study shall consider the  
8   feasibility of establishing a government corporation to con-  
9   struct an Alaska natural gas transportation project, and  
10  alternative means of providing federal financing and own-  
11  ership (including alternative combinations of government  
12  and private corporate ownership) of the project.

13       (c) CONSULTATION.—In conducting the study, the  
14  Secretary of Energy shall consult with the Secretary of  
15  the Treasury and the Secretary of the Army (acting  
16  through the Commanding General of the Corps of Engi-  
17  neers).

18       (d) REPORT.—If the Secretary of Energy is required  
19  to conduct a study under subsection (a), he shall submit  
20  a report containing the results of the study, his rec-  
21  ommendations, and any proposals for legislation to imple-  
22  ment his recommendations to the Congress within 6  
23  months after the expiration of the Secretary of Energy's  
24  authority to guarantee a loan under section 708.



1 **SEC. 710. SAVINGS CLAUSE.**

2       Nothing in this subtitle affects any decision, certifi-  
3 cate, permit, right-of-way, lease, or other authorization  
4 issued under section 9 of the Alaska Natural Gas Trans-  
5 portation Act of 1976 (15 U.S.C. 719g).

6 **SEC. 711. CLARIFICATION OF AUTHORITY TO AMEND**  
7 **TERMS AND CONDITIONS TO MEET CURRENT**  
8 **PROJECT REQUIREMENTS.**

9       Any Federal officer or agency responsible for grant-  
10 ing or issuing any certificate, permit, right-of-way, lease,  
11 or other authorization under section 9 of the Alaska Nat-  
12 ural Gas Transportation Act of 1976 (15 U.S.C. 719g)  
13 may add to, amend, or abrogate any term or condition  
14 included in such certificate, permit, right-of-way, lease, or  
15 other authorization to meet current project requirements  
16 (including the physical design, facilities, and tariff speci-  
17 fications), so long as such action does not compel a change  
18 in the basic nature and general route of the Alaska Nat-  
19 ural Gas Transportation System as designated and de-  
20 scribed in section 2 of the President's Decision, or would  
21 otherwise prevent or impair in any significant respect the  
22 expeditious construction and initial operation of such  
23 transportation system.

24 **SEC. 712. DEFINITIONS.**

25       For purposes of this subtitle:

1           (1) The term “Alaska natural gas” has the  
2           meaning given such term by section 4(1) of the  
3           Alaska Natural Gas Transportation Act of 1976 (15  
4           U.S.C. 719b(1)).

5           (2) The term “Alaska natural gas transpor-  
6           tation project” means any other natural gas pipeline  
7           system that carries Alaska natural gas from the  
8           North Slope of Alaska to the border between Alaska  
9           and Canada (including related facilities subject to  
10          the jurisdiction of the Commission) that is author-  
11          ized under either—

12                   (A) the Alaska Natural Gas Transpor-  
13                   tation Act of 1976 (15 U.S.C. 719–719o); or

14                   (B) section 704 of this subtitle.

15          (3) The term “Alaska Natural Gas Transpor-  
16          tation System” means the Alaska natural gas trans-  
17          portation project authorized under the Alaska Nat-  
18          ural Gas Transportation Act of 1976 and designated  
19          and described in section 2 of the President’s Deci-  
20          sion.

21          (4) The term “Commission” means the Federal  
22          Energy Regulatory Commission.

23          (5) The term “natural gas company” means a  
24          person engaged in the transportation of natural gas

1 in interstate commerce or the sale in interstate com-  
 2 merce of such gas for resale; and

3 (6) The term “President’s Decision” means the  
 4 Decision and Report to Congress on the Alaska Nat-  
 5 ural Gas Transportation system issued by the Presi-  
 6 dent on September 22, 1977 pursuant to section 7  
 7 of the Alaska Natural Gas Transportation Act of  
 8 1976 (15 U.S.C. 719c) and approved by Public Law  
 9 95–158.

10 **SEC. 713. SENSE OF THE SENATE.**

11 It is the sense of the Senate that an Alaska natural  
 12 gas transportation project will provide significant eco-  
 13 nomic benefits to the United States and Canada. In order  
 14 to maximize those benefits, the Senate urges the sponsors  
 15 of the pipeline project to make every effort to use steel  
 16 that is manufactured or produced in North America and  
 17 to negotiate a project labor agreement to expedite con-  
 18 struction of the pipeline.

19 **Subtitle B—Operating Pipelines**

20 **SEC. 721. APPLICATION OF HISTORIC PRESERVATION ACT**  
 21 **TO OPERATING PIPELINES.**

22 Section 7 of the Natural Gas Act (15 U.S.C. 717(f))  
 23 is amended by adding at the end the following:

24 “(i)(1) Notwithstanding the National Historic Pres-  
 25 ervation Act (16 U.S.C. 470 et seq.), a transportation fa-

1 cility shall not be eligible for inclusion on the National  
2 Register of Historic Places unless—

3 “(A) the Commission has permitted the aban-  
4 donment of the transportation facility pursuant to  
5 subsection (b), or

6 “(B) the owner of the facility has given written  
7 consent to such eligibility.

8 “(2) Any transportation facility considered eligible  
9 for inclusion on the National Register of Historic Places  
10 prior to the date of enactment of this subsection shall no  
11 longer be eligible unless the owner of the facility gives  
12 written consent to such eligibility.”.

13 **SEC. 722. ENVIRONMENTAL REVIEW AND PERMITTING OF**  
14 **NATURAL GAS PIPELINE PROJECTS.**

15 (a) INTERAGENCY REVIEW.—The Chairman of the  
16 Council on Environmental Quality, in coordination with  
17 the Federal Energy Regulatory Commission, shall estab-  
18 lish an interagency task force to develop an interagency  
19 memorandum of understanding to expedite the environ-  
20 mental review and permitting of natural gas pipeline  
21 projects.

22 (b) MEMBERSHIP OF INTERAGENCY TASK FORCE.—  
23 The task force shall consist of—

1           (1) the Chairman of the Council on Environ-  
2           mental Quality, who shall serve as the Chairman of  
3           the interagency task force,

4           (2) the Chairman of the Federal Energy Regu-  
5           latory Commission,

6           (3) the Director of the Bureau of Land Man-  
7           agement,

8           (4) the Director of the U.S. Fish and Wildlife  
9           Service,

10          (5) the Commanding General, U.S. Army Corps  
11          of Engineers,

12          (6) the Chief of the Forest Service,

13          (7) the Administrator of the Environmental  
14          Protection Agency,

15          (8) the Chairman of the Advisory Council on  
16          Historic Preservation, and

17          (9) the heads of such other agencies as the  
18          Chairman of the Council on Environmental Quality  
19          and the Chairman of the Federal Energy Regulatory  
20          Commission deem appropriate.

21          (c) MEMORANDUM OF UNDERSTANDING.—The agen-  
22          cies represented by the members of the interagency task  
23          force shall enter into the memorandum of understanding  
24          not later than one year after the date of the enactment  
25          of this section.

**DIVISION C—DIVERSIFYING  
ENERGY DEMAND AND  
IMPROVING EFFICIENCY  
TITLE VIII—FUELS AND  
VEHICLES**

**Subtitle A—CAFE Standards and  
Related Matters**

**SEC. 801. AVERAGE FUEL ECONOMY STANDARDS FOR PAS-  
SENGER AUTOMOBILES AND LIGHT TRUCKS.**

(a) INCREASED STANDARDS.—Section 32902 of title 49, United States Code, is amended—

(1) by striking “NON-PASSENGER AUTOMOBILES.—” in subsection (a) and inserting “PRESCRIPTION OF STANDARDS BY REGULATION.—”; and

(2) by striking “(except passenger automobiles)” in subsection (a) and inserting “(except passenger automobiles and light trucks)”;

(3) by striking subsection (b) and inserting the following:

“(b) STANDARDS FOR PASSENGER AUTOMOBILES AND LIGHT TRUCKS.—

“(1) IN GENERAL.—The Secretary of Transportation, after consultation with the Administrator of the Environmental Protection Agency, shall pre-

1       scribe average fuel economy standards for passenger  
2       automobiles and light trucks manufactured by a  
3       manufacturer in each model year beginning with  
4       model year 2005 in order to achieve a combined av-  
5       erage fuel economy standard for passenger auto-  
6       mobiles and light trucks for model year 2013 of at  
7       least 35 miles per gallon.

8               “(2) ANNUAL PROGRESS TOWARD STANDARD  
9       REQUIRED.—In prescribing average fuel economy  
10       standards under paragraph (1), the Secretary shall  
11       prescribe appropriate annual fuel economy standard  
12       increases for passenger automobiles and light trucks  
13       that—

14               “(A) increase the applicable average fuel  
15       economy standard ratably over the 9 model-year  
16       period beginning with model year 2005 and  
17       ending with model year 2013;

18               “(B) require that each manufacturer  
19       achieve—

20               “(i) a fuel economy standard for pas-  
21       senger automobiles manufactured by that  
22       manufacturer of at least 33.2 miles per  
23       gallon no later than model year 2010; and

24               “(ii) a fuel economy standard for light  
25       trucks manufactured by that manufacturer

1 of at least 26.3 miles per gallon no later  
 2 than model year 2010; and

3 “(C) for any model year within that 9  
 4 model-year period does not result in an average  
 5 fuel economy standard lower than—

6 “(i) 27.5 miles per gallon for pas-  
 7 senger automobiles; or

8 “(ii) 20.7 miles per gallon for light  
 9 duty trucks.

10 “(3) DEADLINE FOR REGULATIONS.—The Sec-  
 11 retary shall promulgate the regulations required by  
 12 paragraphs (1) and (2) in final form no later than  
 13 18 months after the date of enactment of the En-  
 14 ergy Policy Act of 2002.

15 “(4) DEFAULT STANDARDS.—If the Secretary  
 16 fails to meet the requirement of paragraph (3), the  
 17 average fuel economy standard for passenger auto-  
 18 mobiles and light trucks manufactured by a manu-  
 19 facturer in each model year beginning with model  
 20 year 2005 is the average fuel economy standard set  
 21 forth in the following tables:

<b>“For model year</b>	<b>The average fuel economy standard for passenger automobiles is:</b>
2005 .....	28 miles per gallon
2006 .....	28.5 miles per gallon
2007 .....	30 miles per gallon
2008 .....	31 miles per gallon
2009 .....	32.5 miles per gallon
2010 .....	34 miles per gallon



<b>“For model year</b>	<b>The average fuel economy standard for passenger automobiles is:</b>
2011 .....	35 miles per gallon
2012 .....	36.5 miles per gallon
2013 and thereafter .....	38.3 miles per gallon

  

<b>“For model year</b>	<b>The average fuel economy standard for light trucks is:</b>
2005 .....	21.5 miles per gallon
2006 .....	22.5 miles per gallon
2007 .....	23.5 miles per gallon
2008 .....	24.5 miles per gallon
2009 .....	26 miles per gallon
2010 .....	27.5 miles per gallon
2011 .....	29.5 miles per gallon
2012 .....	31 miles per gallon
2013 and thereafter .....	32 miles per gallon.”.

1           “(5) COMBINED STANDARD FOR MODEL YEARS  
2       AFTER MODEL YEAR 2010.—Unless the default  
3       standards under paragraph (4) are in effect, for  
4       model years after model year 2010, the Secretary  
5       may by rulemaking establish—

6           “(A) separate average fuel economy stand-  
7       ards for passenger automobiles and light trucks  
8       manufactured by a manufacturer; or

9           “(B) a combined average fuel economy  
10      standard for passenger automobiles and light  
11      trucks manufactured by a manufacturer.”;

12      (4) by striking “the standard” in subsection  
13      (c)(1) and inserting “a standard”;

14      (5) by striking the first and last sentences of  
15      subsection (c)(2); and

16      (6) by striking “(and submit the amendment to  
17      Congress when required under subsection (c)(2) of  
18      this section)” in subsection (g).

1 (b) DEFINITION OF LIGHT TRUCKS.—

2 (1) IN GENERAL.—Section 32901(a) of title 49,  
3 United States Code, is amended by adding at the  
4 end the following:

5 “(17) ‘light truck’ means an automobile that  
6 the Secretary decides by regulation—

7 “(A) is manufactured primarily for trans-  
8 porting not more than 10 individuals;

9 “(B) is rated at not more than 10,000  
10 pounds gross vehicle weight;

11 “(C) is not a passenger automobile; and

12 “(D) does not fall within the exceptions  
13 from the definition of ‘medium duty passenger  
14 vehicle’ under section 86.1803–01 of title 40,  
15 Code of Federal Regulations.”.

16 (2) DEADLINE FOR REGULATIONS.—The Sec-  
17 retary of Transportation—

18 (A) shall issue proposed regulations imple-  
19 menting the amendment made by paragraph (1)  
20 not later than 1 year after the date of the en-  
21 actment of this Act; and

22 (B) shall issue final regulations imple-  
23 menting the amendment not later than 18  
24 months after the date of the enactment of this  
25 Act.

1           (3) EFFECTIVE DATE.—Regulations prescribed  
2       under paragraph (1) shall apply beginning with  
3       model year 2007.

4           (c) APPLICABILITY OF EXISTING STANDARDS.—This  
5       section does not affect the application of section 32902  
6       of title 49, United States Code, to passenger automobiles  
7       or non-passenger automobiles manufactured before model  
8       year 2005.

9           (d) AUTHORIZATION OF APPROPRIATIONS.—There  
10      are authorized to be appropriated to the Secretary of  
11      Transportation to carry out the provisions of chapter 329  
12      of title 49, United States Code, \$25,000,000 for each of  
13      fiscal years 2003 through 2015.

14   **SEC. 802. FUEL ECONOMY TRUTH IN TESTING.**

15           (a) IN GENERAL.—Section 32907 of title 49, United  
16      States Code, is amended by adding at the end the fol-  
17      lowing:

18           “(c) IMPROVED TESTING PROCEDURES.—

19                   “(1) IN GENERAL.—The Administrator of the  
20      Environmental Protection Agency shall conduct—

21                           “(A) an ongoing examination of the accu-  
22                           racy of fuel economy testing of passenger auto-  
23                           mobiles and light trucks by the Administrator  
24                           performed in accordance with the procedures in  
25                           effect as of the date of enactment of the Energy

1 Policy Act of 2002 for the purpose of deter-  
2 mining whether, and to what extent, the fuel  
3 economy of passenger automobiles and light  
4 trucks as tested by the Administrator differs  
5 from the fuel economy reasonably to be ex-  
6 pected from those automobiles and trucks when  
7 driven by average drivers under average driving  
8 conditions; and

9 “(B) an assessment of the extent to which  
10 fuel economy changes during the life of pas-  
11 senger automobiles and light trucks.”.

12 “(2) REPORT.—The Administrator of the Envi-  
13 ronmental Protection Agency shall, within 12  
14 months after the date of enactment of the Energy  
15 Policy Act of 2002 and annually thereafter, submit  
16 to the Committee on Commerce, Science, and Trans-  
17 portation of the Senate and the Committee on Com-  
18 merce of the House of Representatives a report on  
19 the results of the study required by paragraph (1).  
20 The report shall include—

21 “(A) a comparison between—

22 “(i) fuel economy measured, for each  
23 model in the applicable model year,  
24 through testing procedures in effect as of

1 the date of enactment of the Energy Policy  
2 Act of 2002; and

3 “(ii) fuel economy of such passenger  
4 automobiles and light trucks during actual  
5 on-road performance, as determined under  
6 that paragraph;

7 “(B) a statement of the percentage dif-  
8 ference, if any, between actual on-road fuel  
9 economy and fuel economy measured by test  
10 procedures of the Environmental Protection Ad-  
11 ministration; and

12 “(C) a plan to reduce, by model year 2015,  
13 the percentage difference identified under sub-  
14 paragraph (B) by using uniform test methods  
15 that reflect actual on-the-road fuel economy  
16 consumers experience under normal driving con-  
17 ditions to no greater than 5 percent.”.

18 **SEC. 803. ENSURING SAFETY OF PASSENGER AUTOMOBILES**

19 **AND LIGHT TRUCKS.**

20 (a) IN GENERAL.—The Secretary of Transportation  
21 shall exercise such authority under Federal law as the Sec-  
22 retary may have to ensure that—

23 (1) passenger automobiles and light trucks (as  
24 those terms are defined in section 32901 of title 49,  
25 United States Code) are safe;

1           (2) progress is made in improving the overall  
2       safety of passenger automobiles and light trucks;  
3       and

4           (3) progress is made in maximizing United  
5       States employment.

6       (b) IMPROVED CRASHWORTHINESS.—Subchapter II  
7       of chapter 301 of title 49, United States Code, is amended  
8       by adding at the end the following:

9       **“§ 30128. Improved crashworthiness**

10       “(a) ROLLOVERS.—Within 3 years after the date of  
11       enactment of the Energy Policy Act of 2002, the Secretary  
12       of Transportation, through the National Highway Traffic  
13       Safety Administration, shall prescribe a motor vehicle  
14       safety standard under this chapter for rollover crash-  
15       worthiness standards that includes—

16           “(1) dynamic roof crush standards;

17           “(2) improved seat structure and safety belt de-  
18       sign;

19           “(3) side impact head protection airbags; and

20           “(4) roof injury protection measures.

21       “(b) HEAVY VEHICLE HARM REDUCTION COMPAT-  
22       IBILITY STANDARD.—

23           “(1) Within 3 years after the date of enactment  
24       of the Energy Policy Act of 2002, the Secretary,  
25       through the National Highway Traffic Safety Ad-

1       ministration, shall prescribe a federal motor vehicle  
2       safety standard under this chapter that will reduce  
3       the aggressivity of light trucks by 30 percent, using  
4       a baseline of model year 2002, and will improve ve-  
5       hicle compatibility in collisions between light trucks  
6       and cars, in order to protect against unnecessary  
7       death and injury.

8               “(2) The Secretary should review the effective-  
9       ness of this standard every five years following final  
10      issuance of the standard and shall issue, through the  
11      National Highway Traffic Safety Administration,  
12      upgrades to the standard to reduce fatalities and in-  
13      juries related to vehicle compatibility and light truck  
14      aggressivity.”.

15      (c) CONFORMING AMENDMENT.—The chapter anal-  
16      ysis for chapter 301 of title 49, United States Code, is  
17      amended by inserting after the item relating to section  
18      30127 the following: “30128. Improved crashworthiness”.

19      **SEC. 804. HIGH OCCUPANCY VEHICLE EXCEPTION.**

20      (a) IN GENERAL.—Notwithstanding section  
21      102(a)(1) of title 23, United States Code, a State may,  
22      for the purpose of promoting energy conservation, permit  
23      a vehicle with fewer than 2 occupants to operate in high  
24      occupancy vehicle lanes if it is a hybrid vehicle or is cer-  
25      tified by the Secretary of Transportation, after consulta-

1 tion with the Administrator of the Environmental Protec-  
2 tion Agency, to be a vehicle that runs only on an alter-  
3 native fuel.

4 (b) HYBRID VEHICLE DEFINED.—In this section, the  
5 term “hybrid vehicle” means a motor vehicle—

6 (1) which—

7 (A) draws propulsion energy from onboard  
8 sources of stored energy which are both—

9 (i) an internal combustion or heat en-  
10 gine using combustible fuel; and

11 (ii) a rechargeable energy storage sys-  
12 tem; or

13 (B) recovers kinetic energy through regen-  
14 erative braking and provides at least 13 percent  
15 maximum power from the electrical storage de-  
16 vice;

17 (2) which, in the case of a passenger automobile  
18 or light truck—

19 (A) for 2002 and later model vehicles, has  
20 received a certificate of conformity under sec-  
21 tion 206 of the Clean Air Act (42 U.S.C. 7525)  
22 and meets or exceeds the equivalent qualifying  
23 California low emission vehicle standard under  
24 section 243(e)(2) of the Clean Air Act (42



1 U.S.C. 7583(e)(2)) for that make and model  
2 year; and

3 (B) for 2004 and later model vehicles, has  
4 received a certificate that such vehicle meets  
5 the Tier II emission level established in regula-  
6 tions prescribed by the Administrator of the  
7 Environmental Protection Agency under section  
8 202(i) of the Clean Air Act (42 U.S.C. 7521(i))  
9 for that make and model year vehicle; and (3)  
10 which is made by a manufacturer.

11 (c) ALTERNATIVE FUEL DEFINED.—In this section,  
12 the term “alternative fuel” has the meaning such term has  
13 under section 301(2) of the Energy Policy Act of 1992  
14 (42 U.S.C. 13211(2)).

15 **SEC. 805. CREDIT TRADING PROGRAM.**

16 (a) IN GENERAL.—Section 32903 of title 49, United  
17 States Code, is amended by adding at the end the fol-  
18 lowing:

19 “(g) VEHICLE CREDIT TRADING SYSTEM.—

20 “(1) IN GENERAL.—The Secretary of Transpor-  
21 tation, with technical assistance from the Adminis-  
22 trator of the Environmental Protection Agency, may  
23 establish a system under which manufacturers with  
24 credits under this section may sell those credits to

1 other manufacturers or transfer them among a man-  
2 ufacturer's fleets.

3 “(2) PURPOSES.—The purposes of the system  
4 are:

5 “(A) Reducing the adverse effects of ineffi-  
6 cient consumption of fuel by passenger auto-  
7 mobiles and light trucks.

8 “(B) Accelerating introduction of advanced  
9 technology vehicles into use in the United  
10 States.

11 “(C) Encouraging manufacturers to exceed  
12 the average fuel economy standards established  
13 by section 32902.

14 “(D) Reducing emissions of carbon dioxide  
15 by passenger automobiles and light trucks.

16 “(E) Decreasing the United States' con-  
17 sumption of oil as vehicular fuel.

18 “(F) Providing manufacturers flexibility in  
19 meeting the average fuel economy standards es-  
20 tablished by section 32902.

21 “(G) Increasing consumer choice.

22 “(3) PROGRAM REQUIREMENTS.—The system  
23 established under paragraph (1) shall—

1           “(A) make only credits accrued after the  
2           date of enactment of the Energy Policy Act of  
3           2002 eligible for transfer or sale;

4           “(B) use techniques and methods that  
5           minimize reporting costs for manufacturers;

6           “(C) provide for monitoring and  
7           verification of credit purchases;

8           “(D) require participating manufacturers  
9           to report monthly sales of vehicles to the Ad-  
10          ministrators of the Environmental Protection  
11          Agency; and

12          “(E) make manufacturer-specific credit,  
13          transfer, sale, and purchase information pub-  
14          licly available through annual reports and  
15          monthly posting of transactions on the Internet.

16          “(4) CREDITS MAY BE TRADED BETWEEN PAS-  
17          SENGER AUTOMOBILES AND LIGHT TRUCKS AND BE-  
18          TWEEN DOMESTIC AND IMPORT FLEETS.—The sys-  
19          tem shall provide that credits earned under this  
20          section—

21                 “(A) with respect to passenger automobiles  
22                 may be applied with respect to light trucks;

23                 “(B) with respect to light trucks may be  
24                 applied with respect to passenger automobiles;

1           “(C) with respect to passenger automobiles  
2           manufactured domestically may be applied with  
3           respect to passenger automobiles not manufac-  
4           tured domestically; and

5           “(D) with respect to passenger automobiles  
6           not manufactured domestically may be applied  
7           with respect to passenger automobiles manufac-  
8           tured domestically.

9           “(5) REPORT.—The Secretary and the Admin-  
10          istrator shall jointly submit an annual report to the  
11          Congress—

12               “(A) describing the effectiveness of the  
13               credits provided by this subsection achieving the  
14               purposes described in paragraph (2); and

15               “(B) setting forth a full accounting of all  
16               credits, transfers, sales, and purchases for the  
17               most recent model year for which data is avail-  
18               able.”.

19          (b) NO CARRYBACK OF CREDITS.—Section 32903(a)  
20          of title 49, United States Code, is amended—

21               (1) by striking “applied to—” and inserting  
22               “applied—”;

23               (2) by inserting “for model years before model  
24               year 2006, to” in paragraph (1) before “any”;

1           (3) by striking “and” after the semicolon in  
2       paragraph (1);

3           (4) by striking “earned.” in paragraph (2) and  
4       inserting “earned; and”; and

5           (5) by adding at the end the following:

6           “(3) for model years after 2001, in accordance  
7       with the vehicle credit trading system established  
8       under subsection (g), to any of the 3 consecutive  
9       model years immediately after the model year for  
10      which the credit was earned.”.

11       (c) USE OF CREDIT VALUE TO CALCULATE CIVIL  
12   PENALTY.—Section 32912(b) of title 49, United States  
13   Code, is amended—

14           (1) by inserting “and is unable to purchase suf-  
15      ficient credits under section 32903(g) to comply with  
16      the standard” after “title” the first place it appears;  
17      and

18           (2) by striking all after “penalty” and inserting  
19      “of the greater of—

20           “(1) an amount determined by multiplying—

21           “(A) the number of credits necessary to  
22      enable the manufacturer to meet that standard;  
23      by

1           “(B) 1.5 times the previous year’s weight-  
2           ed average open market price of a credit under  
3           section 32903(g); or

4           “(2) \$5 multiplied by each 0.1 of a mile a gal-  
5           lon by which the applicable average fuel economy  
6           standard under section 32902 exceeds the average  
7           fuel economy—

8           “(A)       calculated       under       section  
9           32904(a)(1)(A) or (B) for automobiles to which  
10          the standard applied manufactured by the man-  
11          ufacturer during the model year;

12          “(B) multiplied by the number of those  
13          automobiles; and

14          “(C) reduced by the credits available to the  
15          manufacturer under section 32903 for the  
16          model year.”.

17       (d) CONFORMING AMENDMENTS.—Section 32903 of  
18       title 49, United States Code, is amended—

19           (1) by inserting “or light trucks” after “pas-  
20           senger automobiles” each place it appears in sub-  
21           section (c);

22           (2) by inserting after “manufacturer.” in sub-  
23           section (d) “Credits earned with respect to pas-  
24           senger automobiles may be used with respect to non-  
25           passenger automobiles and light duty trucks.”; and

1           (3) by inserting after “manufacturer.” in sub-  
2           section (e) “Credits earned with respect to non-pas-  
3           senger automobiles or light trucks may be used with  
4           respect to passenger automobiles.”.

5   **SEC. 806. GREEN LABELS FOR FUEL ECONOMY.**

6           Section 32908 of title 49, United States Code, is  
7   amended—

8           (1) by striking “title.” in subsection (a)(1) and  
9           inserting “title, and a light truck (as defined in sec-  
10          tion 32901(17) after model year 2005; and”;

11          (2) by redesignating subparagraph (F) of sub-  
12          section (b)(1) as subparagraph (H), and inserting  
13          after subparagraph (E) the following:

14                 “(F) a label (or a logo imprinted on a label  
15          required by this paragraph) that—

16                         “(i) reflects an automobile’s perform-  
17                         ance on the basis of criteria developed by  
18                         the Administrator to reflect the fuel econ-  
19                         omy and greenhouse gas and other emis-  
20                         sions consequences of operating the auto-  
21                         mobile over its likely useful life;

22                         “(ii) permits consumers to compare  
23                         performance results under clause (i)  
24                         among all passenger automobiles and light  
25                         duty trucks (as defined in section 32901)

1 and with vehicles in the vehicle class to  
2 which it belongs; and

3 “(iii) is designed to encourage the  
4 manufacture and sale of passenger auto-  
5 mobiles and light trucks that meet or ex-  
6 ceed applicable fuel economy standards  
7 under section 32902.

8 “(G) a fuelstar under paragraph (5).”; and  
9 (3) by adding at the end of subsection (b) the  
10 following:

11 “(4) GREEN LABEL PROGRAM.—

12 “(A) MARKETING ANALYSIS.—Within 2  
13 years after the date of enactment of the Energy  
14 Policy Act of 2002, the Administrator shall  
15 complete a study of social marketing strategies  
16 with the goal of maximizing consumer under-  
17 standing of point-of-sale labels or logos de-  
18 scribed in paragraph (1)(F).

19 “(B) CRITERIA.—In developing criteria for  
20 the label or logo, the Administrator shall also  
21 consider, among others as appropriate, the fol-  
22 lowing factors:

23 “(i) The amount of greenhouse gases  
24 that will be emitted over the life-cycle of  
25 the automobile.



1                   “(ii) The fuel economy of the auto-  
2                   mobile.

3                   “(iii) The recyclability of the auto-  
4                   mobile.

5                   “(iv) Any other pollutants or harmful  
6                   byproducts related to the automobile,  
7                   which may include those generated during  
8                   manufacture of the automobile, those  
9                   issued during use of the automobile, or  
10                  those generated after the automobile  
11                  ceases to be operated.

12                  “(5) FUELSTAR PROGRAM.—The Secretary, in  
13                  consultation with the Administrator, shall establish a  
14                  program, to be known as the ‘fuelstar’ program,  
15                  under which stars shall be imprinted on or attached  
16                  to the label required by paragraph (1) that will, con-  
17                  sistent with the findings of the marketing analysis  
18                  required under subsection 4(A), provide consumer  
19                  incentives to purchase vehicles that exceed the appli-  
20                  cable fuel economy standard.

21 **SEC. 807. LIGHT TRUCK CHALLENGE.**

22                  (a) IN GENERAL.—The Secretary of Transportation  
23                  shall conduct an open competition for a project to dem-  
24                  onstrate the feasibility of multiple fuel hybrid electric vehi-  
25                  cle powertrains in sport utility vehicles and light trucks.

1 The Secretary shall execute a contract with the entity de-  
2 termined by the Secretary to be the winner of the competi-  
3 tion under which the Secretary will provide \$10,000,000  
4 to that entity in each of fiscal years 2003 and 2004 to  
5 carry out the project.

6 (b) PROJECT REQUIREMENTS.—Under the contract,  
7 the Secretary shall require the entity to which the contract  
8 is awarded to—

9 (1) select a current model year production vehi-  
10 cle;

11 (2) modify that vehicle so that it—

12 (A) meets all existing vehicle performance  
13 characteristics of the sport utility vehicle or  
14 light truck selected for the project;

15 (B) improves the vehicle's fuel economy  
16 rating by 50 percent or more (as measured by  
17 gasoline consumption); and

18 (3) meet the requirements of paragraph (2) in  
19 such a way that incorporation of the modification in  
20 the manufacturer's production process would not in-  
21 crease the vehicle's incremental production costs by  
22 more than 10 percent.

23 (c) ELIGIBLE ENTRANTS.—The competition con-  
24 ducted by the Secretary shall be open to any entity, or

1 consortium of nongovernmental entities, educational insti-  
2 tutions, and not-for-profit organizations, that—

3           (1) has the technical capability and resources  
4           needed to complete the project successfully; and

5           (2) has sufficient financial resources in addition  
6           to the contract amount, if necessary, to complete the  
7           contract successfully.

8           (d) AUTHORIZATION OF APPROPRIATIONS.—There  
9 are authorized to be appropriated to the Secretary of  
10 Transportation \$10,000,000 for each of fiscal years 2003  
11 and 2004 to carry out this section.

12 **SEC. 808. SECRETARY OF TRANSPORTATION TO CERTIFY**  
13 **BENEFITS.**

14           Beginning with model year 2005, the Secretary of  
15 Transportation, in consultation with the Administrator of  
16 the Environmental Protection Agency, shall determine and  
17 certify annually to the Congress—

18           (1) the annual reduction in United States con-  
19           sumption of petroleum used for vehicle fuel, and

20           (2) the annual reduction in greenhouse gas  
21           emissions,

22 properly attributable to the implementation of the average  
23 fuel economy standards imposed under section 32902 of  
24 title 49, United States Code, as a result of the amend-  
25 ments made by this Act.

1 **SEC. 809. DEPARTMENT OF TRANSPORTATION ENGINEER-**  
2 **ING AWARD PROGRAM.**

3 (a) **ENGINEERING TEAM AWARDS.**—The Secretary of  
4 Transportation shall establish an engineering award pro-  
5 gram to recognize the engineering team of any manufac-  
6 turer of passenger automobiles or light trucks (as such  
7 terms are defined in section 32901 of title 49, United  
8 States Code) whose work directly results in production  
9 models of—

10 (1) the first large sport utility vehicle, van, or  
11 light truck to achieve a fuel economy rating of 30  
12 miles per gallon under section 32902 of such title;

13 (2) the first mid-sized sport utility vehicle, van,  
14 or light truck to achieve a fuel economy rating of 35  
15 miles per gallon under section 32902 of such title;  
16 and

17 (3) the first mid-sized sport utility vehicle, van,  
18 or light truck to achieve a fuel economy rating of 40  
19 miles per gallon under section 32902 of such title.

20 (b) **MANUFACTURER'S AWARD.**—The Secretary of  
21 Transportation shall establish an Oil Independence Award  
22 to recognize the first manufacturer of domestically-manu-  
23 factured (within the meaning of section 32903 of title 49,  
24 United States Code) passenger automobiles and light  
25 trucks to achieve a combined fuel economy rating of 37  
26 miles per gallon under section 32902 of such title.

1       (c) REQUIREMENTS FOR PARTICIPATION IN ENGI-  
2 NEERING TEAM AWARDS PROGRAM.—In establishing the  
3 engineering team awards program under subsection (a),  
4 the Secretary shall establish eligibility requirements that  
5 include—

6           (1) a requirement that the vehicle, van, or truck  
7       be domestically-manufactured or manufacturable (if  
8       a prototype) within the meaning of section 32903 of  
9       title 49, United States Code;

10          (2) a requirement that the vehicle, van, or truck  
11       meet all applicable Federal standards for emissions  
12       and safety (except that crash testing shall not be re-  
13       quired for a prototype); and

14          (3) such additional requirements as the Sec-  
15       retary may require in order to carry out the pro-  
16       gram.

17       (d) AMOUNT OF PRIZE.—The Secretary shall award  
18 a prize of not less than \$10,000 to each engineering team  
19 determined by the Secretary to have successfully met the  
20 requirements of subsection (a)(1), (2), or (3). The Sec-  
21 retary shall provide for recognition of any manufacturer  
22 to have met the requirements of subsection (b) with appro-  
23 priate ceremonies and activities, and may provide a mone-  
24 tary award in an amount determined by the Secretary to  
25 be appropriate.

1       (e) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to the Secretary of  
3 Transportation such sums as may be necessary to carry  
4 out this section.

5 **SEC. 810. COOPERATIVE TECHNOLOGY AGREEMENTS.**

6       (a) IN GENERAL.—The Secretary of Transportation,  
7 in cooperation with the Administrator of the Environ-  
8 mental Protection Agency, may execute a cooperative re-  
9 search and development agreement with any manufacturer  
10 of passenger automobiles or light trucks (as those terms  
11 are defined in section 32901 of title 49, United States  
12 Code) to implement, utilize, and incorporate in production  
13 government-developed or jointly-developed fuel economy  
14 technology that will result in improvements in the average  
15 fuel economy of any class of vehicles produced by that  
16 manufacturer of at least 55 percent greater than the aver-  
17 age fuel economy of that class of vehicles for model year  
18 2000.

19       (b) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to the Secretary of  
21 Transportation and the Administrator of the Environ-  
22 mental Protection Agency such sums as may be necessary  
23 to carry out this section.

**Subtitle B—Alternative and  
Renewable Fuels**

**SEC. 811. INCREASED USE OF ALTERNATIVE FUELS BY FEDERAL FLEETS.**

**(a) REQUIREMENT TO USE ALTERNATIVE FUELS.—**

Section 400AA(a)(3)(E) of the Energy Policy and Conservation Act (42 U.S.C. 6374(a)(3)(E)) is amended to read as follows:

“(E) Dual fueled vehicles acquired pursuant to this section shall be operated on alternative fuels. If the Secretary determines that all dual fueled vehicles acquired pursuant to this section cannot operate on alternative fuels at all times, he may waive the requirement in part, but only to the extent that:

“(i) not later than September 30, 2003, not less than 50 percent of the total annual volume of fuel used in such dual fueled vehicles shall be from alternative fuels; and

“(ii) not later than September 30, 2005, not less than 75 percent of the total annual volume of fuel used in such dual fueled vehicles shall be from alternative fuels.”.

1 (b) DEFINITION OF “DEDICATED VEHICLE”.—Sec-  
2 tion 400AA(g)(4)(B) of the Energy Policy and Conserva-  
3 tion Act (42 U.S.C. 6374(g)(4)(B)) is amended by insert-  
4 ing after “solely on alternative fuel” the following: “, in-  
5 cluding a three-wheeled enclosed electric vehicle having a  
6 vehicle identification number”.

7 **SEC. 812. EXCEPTION TO HOV PASSENGER REQUIREMENTS**  
8 **FOR ALTERNATIVE FUEL VEHICLES.**

9 Section 102(a)(1) of title 23, United States Code, is  
10 amended by inserting after “required” the following: “(un-  
11 less, in the discretion of the State transportation depart-  
12 ment, the vehicle is being operated on, or is being fueled  
13 by, an alternative fuel (as defined in section 301(2) of the  
14 Energy Policy Act of 1992 (42 U.S.C. 13211(2)))”.

15 **SEC. 813. DATA COLLECTION.**

16 Section 205 of the Department of Energy Organiza-  
17 tion Act (42 U.S.C. 7135) is amended by adding at the  
18 end the following:

19 “(m) In order to improve the ability to evaluate the  
20 effectiveness of the Nation’s renewable fuels mandate, the  
21 Administrator shall conduct and publish the results of a  
22 survey of renewable fuels consumption in the motor vehicle  
23 fuels market in the United States monthly, and in a man-  
24 ner designed to protect the confidentiality of individual re-  
25 sponses. In conducting the survey, the Administrator shall



1 collect information both on a national basis and a regional  
2 basis, including—

3 “(1) the quantity of renewable fuels produced;

4 “(2) the cost of production;

5 “(3) the cost of blending and marketing;

6 “(4) the quantity of renewable fuels consumed;

7 “(5) the quantity of renewable fuels imported;

8 and

9 “(6) market price data.”.

10 **SEC. 814. GREEN SCHOOL BUS PILOT PROGRAM.**

11 (a) ESTABLISHMENT.—The Secretary of Energy and  
12 the Secretary of Transportation shall jointly establish a  
13 pilot program for awarding grants on a competitive basis  
14 to eligible entities for the demonstration and commercial  
15 application of alternative fuel school buses and ultra-low  
16 sulfur diesel school buses.

17 (b) REQUIREMENTS.—Not later than 3 months after  
18 the date of the enactment of this Act, the Secretary shall  
19 establish and publish in the Federal Register grant re-  
20 quirements on eligibility for assistance, and on implemen-  
21 tation of the program established under subsection (a), in-  
22 cluding certification requirements to ensure compliance  
23 with this subtitle.

1       (c) SOLICITATION.—Not later than 6 months after  
2 the date of the enactment of this Act, the Secretary shall  
3 solicit proposals for grants under this section.

4       (d) ELIGIBLE RECIPIENTS.—A grant shall be award-  
5 ed under this section only—

6           (1) to a local governmental entity responsible  
7 for providing school bus service for one or more pub-  
8 lic school systems; or

9           (2) jointly to an entity described in paragraph  
10 (1) and a contracting entity that provides school bus  
11 service to the public school system or systems.

12       (e) TYPES OF GRANTS.—

13           (1) IN GENERAL.—Grants under this section  
14 shall be for the demonstration and commercial appli-  
15 cation of technologies to facilitate the use of alter-  
16 native fuel school buses and ultra-low sulfur diesel  
17 school buses instead of buses manufactured before  
18 model year 1977 and diesel-powered buses manufac-  
19 tured before model year 1991.

20           (2) NO ECONOMIC BENEFIT.—Other than the  
21 receipt of the grant, a recipient of a grant under this  
22 section may not receive any economic benefit in con-  
23 nection with the receipt of the grant.

24           (3) PRIORITY OF GRANT APPLICATIONS.—The  
25 Secretary shall give priority to awarding grants to

1 applicants who can demonstrate the use of alter-  
2 native fuel buses and ultra-low sulfur diesel school  
3 buses instead of buses manufactured before model  
4 year 1977.

5 (f) CONDITIONS OF GRANT.—A grant provided under  
6 this section shall include the following conditions:

7 (1) All buses acquired with funds provided  
8 under the grant shall be operated as part of the  
9 school bus fleet for which the grant was made for a  
10 minimum of 5 years.

11 (2) Funds provided under the grant may only  
12 be used—

13 (A) to pay the cost, except as provided in  
14 paragraph (3), of new alternative fuel school  
15 buses or ultra-low sulfur diesel school buses, in-  
16 cluding State taxes and contract fees; and

17 (B) to provide—

18 (i) up to 10 percent of the price of the  
19 alternative fuel buses acquired, for nec-  
20 essary alternative fuel infrastructure if the  
21 infrastructure will only be available to the  
22 grant recipient; and

23 (ii) up to 15 percent of the price of  
24 the alternative fuel buses acquired, for nec-  
25 essary alternative fuel infrastructure if the

1 infrastructure will be available to the grant  
2 recipient and to other bus fleets.

3 (3) The grant recipient shall be required to pro-  
4 vide at least the lesser of 15 percent of the total cost  
5 of each bus received or \$15,000 per bus.

6 (4) In the case of a grant recipient receiving a  
7 grant to demonstrate ultra-low sulfur diesel school  
8 buses, the grant recipient shall be required to pro-  
9 vide documentation to the satisfaction of the Sec-  
10 retary that diesel fuel containing sulfur at not more  
11 than 15 parts per million is available for carrying  
12 out the purposes of the grant, and a commitment by  
13 the applicant to use such fuel in carrying out the  
14 purposes of the grant.

15 (g) BUSES.—Funding under a grant made under this  
16 section may only be used to demonstrate the use of new  
17 alternative fuel school buses or ultra-low sulfur diesel  
18 school buses that—

19 (1) have a gross vehicle weight greater than  
20 14,000 pounds;

21 (2) are powered by a heavy duty engine;

22 (3) in the case of alternative fuel school buses,  
23 emit not more than—

24 (A) for buses manufactured in model year  
25 2002, 2.5 grams per brake horsepower-hour of

1 nonmethane hydrocarbons and oxides of nitro-  
2 gen and .01 grams per brake horsepower-hour  
3 of particulate matter; and

4 (B) for buses manufactured in model years  
5 2003 through 2006, 1.8 grams per brake horse-  
6 power-hour of nonmethane hydrocarbons and  
7 oxides of nitrogen and .01 grams per brake  
8 horsepower-hour of particulate matter; and

9 (4) in the case of ultra-low sulfur diesel school  
10 buses, emit not more than the lesser of—

11 (A) the emissions of nonmethane hydro-  
12 carbons, oxides of nitrogen, and particulate  
13 matter of the best performing technology of the  
14 same class of ultra-low sulfur diesel school  
15 buses commercially available at the time the  
16 grant is made; or

17 (B) the applicable following amounts—

18 (i) for buses manufactured in model  
19 year 2002 or 2003, 3.0 grams per brake  
20 horsepower-hour of oxides of nitrogen and  
21 .01 grams per brake horsepower-hour of  
22 particulate matter; and

23 (ii) for buses manufactured in model  
24 years 2004 through 2006, 2.5 grams per  
25 brake horsepower-hour of nonmethane hy-

1                   drocarbons and oxides of nitrogen and .01  
2                   grams per brake horsepower-hour of par-  
3                   ticulate matter.

4           (h) DEPLOYMENT AND DISTRIBUTION.—The Sec-  
5   retary shall seek to the maximum extent practicable to  
6   achieve nationwide deployment of alternative fuel school  
7   buses through the program under this section, and shall  
8   ensure a broad geographic distribution of grant awards,  
9   with a goal of no State receiving more than 10 percent  
10   of the grant funding made available under this section for  
11   a fiscal year.

12          (i) LIMIT ON FUNDING.—The Secretary shall provide  
13   not less than 20 percent and not more than 25 percent  
14   of the grant funding made available under this section for  
15   any fiscal year for the acquisition of ultra-low sulfur diesel  
16   school buses.

17          (j) DEFINITIONS.—For purposes of this section—

18               (1) the term “alternative fuel school bus”  
19               means a bus powered substantially by electricity (in-  
20               cluding electricity supplied by a fuel cell), or by liq-  
21               uefied natural gas, compressed natural gas, liquefied  
22               petroleum gas, hydrogen, propane, or methanol or  
23               ethanol at no less than 85 percent by volume; and

24               (2) the term “ultra-low sulfur diesel school  
25               bus” means a school bus powered by diesel fuel

1       which contains sulfur at not more than 15 parts per  
2       million.

3   **SEC. 815. FUEL CELL BUS DEVELOPMENT AND DEM-**  
4                   **ONSTRATION PROGRAM.**

5       (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
6       shall establish a program for entering into cooperative  
7       agreements with private sector fuel cell bus developers for  
8       the development of fuel cell-powered school buses, and  
9       subsequently with not less than 2 units of local govern-  
10      ment using natural gas-powered school buses and such  
11      private sector fuel cell bus developers to demonstrate the  
12      use of fuel cell-powered school buses.

13      (b) COST SHARING.—The non-Federal contribution  
14      for activities funded under this section shall be not less  
15      than—

16              (1) 20 percent for fuel infrastructure develop-  
17      ment activities; and

18              (2) 50 percent for demonstration activities and  
19      for development activities not described in paragraph  
20      (1).

21      (c) FUNDING.—No more than \$25,000,000 of the  
22      amounts authorized under section 815 may be used for  
23      carrying out this section for the period encompassing fis-  
24      cal years 2003 through 2006.

1 (d) REPORTS TO CONGRESS.—Not later than 3 years  
2 after the date of the enactment of this Act, and not later  
3 than October 1, 2006, the Secretary shall transmit to the  
4 appropriate congressional committees a report that—

5 (1) evaluates the process of converting natural  
6 gas infrastructure to accommodate fuel cell-powered  
7 school buses; and

8 (2) assesses the results of the development and  
9 demonstration program under this section.

10 **SEC. 816. AUTHORIZATION OF APPROPRIATIONS.**

11 There are authorized to be appropriated to the Sec-  
12 retary of Energy for carrying out sections 814 and 815,  
13 to remain available until expended—

14 (1) \$50,000,000 for fiscal year 2003;

15 (2) \$60,000,000 for fiscal year 2004;

16 (3) \$70,000,000 for fiscal year 2005; and

17 (4) \$80,000,000 for fiscal year 2006.

18 **SEC. 817. BIODIESEL FUEL USE CREDIT.**

19 Section 312(c) of the Energy Policy Act of 1992 (42  
20 U.S.C. 13220(c)) is amended—

21 (1) by striking “NOT” in the subsection head-  
22 ing; and

23 (2) by striking “not”.



1 **SEC. 818. RENEWABLE CONTENT OF MOTOR VEHICLE FUEL.**

2 (a) IN GENERAL.—Section 211 of the Clean Air Act  
3 (42 U.S.C. 7545) is amended—

4 (1) by redesignating subsection (o) as sub-  
5 section (q); and

6 (2) by inserting after subsection (n) the fol-  
7 lowing:

8 “(o) RENEWABLE FUEL PROGRAM.—

9 “(1) DEFINITIONS.—In this section:

10 “(A) CELLULOSIC BIOMASS ETHANOL.—

11 The term ‘cellulosic biomass ethanol’ means  
12 ethanol derived from any lignocellulosic or  
13 hemicellulosic matter that is available on a re-  
14 newable or recurring basis, including—

15 “(i) dedicated energy crops and trees;

16 “(ii) wood and wood residues;

17 “(iii) plants;

18 “(iv) grasses;

19 “(v) agricultural commodities and res-  
20 idues;

21 “(vi) fibers;

22 “(vii) animal wastes and other waste  
23 materials; and

24 “(viii) municipal solid waste.

25 “(B) RENEWABLE FUEL.—

1 “(i) IN GENERAL.—The term ‘renew-  
2 able fuel’ means motor vehicle fuel that—

3 “(I)(aa) is produced from grain,  
4 starch, oilseeds, or other biomass; or

5 “(bb) is natural gas produced  
6 from a biogas source, including a  
7 landfill, sewage waste treatment plant,  
8 feedlot, or other place where decaying  
9 organic material is found; and

10 “(II) is used to replace or reduce  
11 the quantity of fossil fuel present in a  
12 fuel mixture used to operate a motor  
13 vehicle.

14 “(ii) INCLUSION.—The term ‘renew-  
15 able fuel’ includes cellulosic biomass eth-  
16 anol and biodiesel (as defined in section  
17 312(f)(1) of the Energy Policy Act of 1992  
18 (42 U.S.C. 13220(f)(1)).

19 “(C) SMALL REFINERY.—The term ‘small  
20 refinery’ means a refinery for which average ag-  
21 gregate daily crude oil throughput for the cal-  
22 endar year (as determined by dividing the ag-  
23 gregate throughput for the calendar year by the  
24 number of days in the calendar year) do not ex-  
25 ceed 65,000 barrels.

1 “(2) RENEWABLE FUEL PROGRAM.—

2 “(A) IN GENERAL.—Except as provided in  
3 subparagraph (B)(i)(II), the motor vehicle fuel  
4 sold or introduced into commerce in the United  
5 States in calendar year 2003 or any calendar  
6 year thereafter by a refiner, blender, or im-  
7 porter shall contain, on a 6-month average  
8 basis, a quantity of renewable fuel, measured in  
9 gallons, that is not less than the applicable vol-  
10 ume determined under subparagraph (B).

11 “(B) APPLICABLE VOLUME.—

12 “(i) CALENDAR YEAR 2003.—For cal-  
13 endar year 2003—

14 “(I) for the purpose of subpara-  
15 graph (A), the applicable volume shall  
16 be 2,000,000,000 gallons; and

17 “(II) subparagraph (A) shall  
18 apply only to a refiner, blender, or im-  
19 porter located in Petroleum Adminis-  
20 tration for Defense District II, III, or  
21 IV.

22 “(ii) CALENDAR YEARS 2004 THROUGH  
23 2012.—For the purpose of subparagraph  
24 (A), the applicable volume for any of cal-  
25 endar years 2004 through 2012 shall be

1                   determined in accordance with the fol-  
 2                   lowing table:

<b>“Calendar year:</b>	<b>Applicable volume of renewable fuel (in billions of gallons):</b>
2004 .....	2.3
2005 .....	2.6
2006 .....	2.9
2007 .....	3.2
2008 .....	3.5
2009 .....	3.9
2010 .....	4.3
2011 .....	4.7
2012 .....	5.0.

3                   “(iii) CALENDAR YEAR 2013 AND  
 4                   THEREAFTER.—For the purpose of sub-  
 5                   paragraph (A), the applicable volume for  
 6                   calendar year 2013 and each calendar year  
 7                   thereafter shall be equal to the product ob-  
 8                   tained by multiplying—

9                   “(I) the number of gallons of  
 10                  motor vehicle fuel that the Adminis-  
 11                  trator estimates will be sold or intro-  
 12                  duced into commerce in the calendar  
 13                  year; and

14                  “(II) the ratio that—

15                  “(aa) the number of gallons  
 16                  of motor vehicle fuel sold or in-  
 17                  troduced into commerce in cal-  
 18                  endar year 2012 that consists of  
 19                  renewable fuel; bears to

1                   “(bb) the number of gallons  
2                   of motor vehicle fuel sold or in-  
3                   troduced into commerce in cal-  
4                   endar year 2012.

5                   “(3) CELLULOSIC BIOMASS ETHANOL.—For the  
6                   purpose of paragraph (2), 1 gallon of cellulosic bio-  
7                   mass ethanol shall be considered to be the equivalent  
8                   of 1.5 gallons of renewable fuel.

9                   “(4) CREDIT PROGRAM.—

10                   “(A) IN GENERAL.—The regulations  
11                   promulgated to carry out this subsection  
12                   shall provide for the generation of an ap-  
13                   propriate amount of credits by a person  
14                   that refines, blends, or imports motor vehi-  
15                   cle fuel that contains, on a 6-month aver-  
16                   age basis, a quantity of renewable fuel that  
17                   is greater than the quantity required for  
18                   that 6-month period under paragraph (2).

19                   “(B) USE OF CREDITS.—A person  
20                   that generates credits under subparagraph  
21                   (A) may use the credits, or transfer all or  
22                   a portion of the credits to another person,  
23                   for the purpose of complying with para-  
24                   graph (2).

1                   “(C) EXPIRATION OF CREDITS.—A  
2                   credit generated under this paragraph shall  
3                   expire 1 year after the date on which the  
4                   credit was generated.

5                   “(5) WAIVERS.—

6                   “(A) IN GENERAL.—The Administrator, in  
7                   consultation with the Secretary of Agriculture  
8                   and the Secretary of Energy, may waive the re-  
9                   quirement of paragraph (2) in whole or in part  
10                  on petition by 1 or more States by reducing the  
11                  national quantity of renewable fuel required  
12                  under this subsection—

13                  “(i) based on a determination by the  
14                  Administrator, after public notice and op-  
15                  portunity for comment, that implementa-  
16                  tion of the requirement would severely  
17                  harm the economy or environment of a  
18                  State, a region, or the United States; or

19                  “(ii) based on a determination by the  
20                  Administrator, after public notice and op-  
21                  portunity for comment, that there is an in-  
22                  adequate domestic supply or distribution  
23                  capacity to meet the requirement.

1           “(B) PETITIONS FOR WAIVERS.—The Ad-  
2           ministrator, in consultation with the Secretary  
3           of Agriculture and the Secretary of Energy—

4                   “(i) shall approve or deny a State pe-  
5                   tition for a waiver of the requirement of  
6                   paragraph (2) within 180 days after the  
7                   date on which the petition is received; but

8                   “(ii) may extend that period for up to  
9                   60 additional days to provide for public no-  
10                  tice and opportunity for comment and for  
11                  consideration of the comments submitted.

12           “(C) TERMINATION OF WAIVERS.—A waiv-  
13           er granted under subparagraph (A) shall termi-  
14           nate after 1 year, but may be renewed by the  
15           Administrator after consultation with the Sec-  
16           retary of Agriculture and the Secretary of En-  
17           ergy.

18           “(6) SMALL REFINERS.—The requirement of  
19           paragraph (2) shall not apply to a small refinery.

20           “(7) REGULATIONS.—Not later than 270 days  
21           after the date of enactment of this paragraph, the  
22           Administrator shall promulgate regulations to carry  
23           out this subsection.”.

24           (b) DISTILLATION INDEX.—Section 211 of the Clean  
25           Air Act (42 U.S.C. 7545) is amended by inserting before

1 subsection (q) (as redesignated by subsection (a)(1)) the  
2 following:

3 “(p) DISTILLATION INDEX.—Effective January 1,  
4 2004, no person shall manufacture, sell, supply, offer for  
5 sale, or supply, dispense, transport, or introduce into com-  
6 merce gasoline that has a distillation index that exceeds  
7 1,200.”.

8 (c) PENALTIES AND ENFORCEMENT.—Section  
9 211(d) of the Clean Air Act (42 U.S.C. 7545(d)) is  
10 amended—

11 (1) in paragraph (1)—

12 (A) in the first sentence, by striking “or  
13 (n)” each place it appears and inserting “(n),  
14 (o), or (p)”; and

15 (B) in the second sentence, by striking “or  
16 (m)” and inserting “(m), (o), or (p)”; and

17 (2) in the first sentence of paragraph (2), by  
18 striking “and (n)” each place it appears and insert-  
19 ing “(n), (o), and (p)”.

20 (d) ELIMINATION OF ETHANOL WAIVER.—Section  
21 211(h)(4) of the Clean Air Act (42 U.S.C. 7545(h)(4))  
22 is amended by striking “For” and inserting “In the case  
23 of a State that is not located east of the Mississippi River,  
24 for”.



1 **SEC. 819. NEIGHBORHOOD ELECTRIC VEHICLES.**

2 Section 301 of the Energy Policy Act of 1992 (42  
3 U.S.C. 13211) is amended—

4 (1) by striking “or a dual fueled vehicle” and  
5 inserting “, a dual fueled vehicle, or a neighborhood  
6 electric vehicle”;

7 (2) by striking “and” at the end of paragraph  
8 (13);

9 (3) by striking the period at the end of sub-  
10 paragraph (14) and inserting “; and”; and

11 (4) by adding at the end the following:

12 “(15) the term ‘neighborhood electric vehicle’  
13 means a motor vehicle that qualifies as both—

14 “(A) a low-speed vehicle, as such term is  
15 defined in section 571.3(b) of title 49, Code of  
16 Federal Regulations; and

17 “(B) a zero-emission vehicle, as such term  
18 is defined in section 86.1703–99 of title 40,  
19 Code of Federal Regulations.”.

20 **Subtitle C—Federal Reformulated**  
21 **Fuels**

22 **SEC. 821. SHORT TITLE.**

23 This subtitle may be cited as the “Federal Reformu-  
24 lated Fuels Act of 2002”.

1 **SEC. 822. LEAKING UNDERGROUND STORAGE TANKS.**

2 (a) USE OF LUST FUNDS FOR REMEDIATION OF  
3 MTBE CONTAMINATION.—Section 9003(h) of the Solid  
4 Waste Disposal Act (42 U.S.C. 6991b(h)) is amended—

5 (1) in paragraph (7)(A)—

6 (A) by striking “paragraphs (1) and (2) of  
7 this subsection” and inserting “paragraphs (1),  
8 (2), and (12)”;

9 (B) by inserting “and section 9010” before  
10 “if”; and

11 (2) by adding at the end the following:

12 “(12) REMEDIATION OF MTBE CONTAMINA-  
13 TION.—

14 “(A) IN GENERAL.—The Administrator  
15 and the States may use funds made available  
16 under section 9011(1) to carry out corrective  
17 actions with respect to a release of methyl ter-  
18 tiary butyl ether that presents a threat to  
19 human health, welfare, or the environment.

20 “(B) APPLICABLE AUTHORITY.—Subpara-  
21 graph (A) shall be carried out—

22 “(i) in accordance with paragraph (2);  
23 and

24 “(ii) in the case of a State, in accord-  
25 ance with a cooperative agreement entered

1                   into by the Administrator and the State  
2                   under paragraph (7).”.

3           (b) **RELEASE PREVENTION AND COMPLIANCE.**—Sub-  
4 title I of the Solid Waste Disposal Act (42 U.S.C. 6991  
5 et seq.) is amended by striking section 9010 and inserting  
6 the following:

7   **“SEC. 9010. RELEASE PREVENTION AND COMPLIANCE.**

8           “Funds made available under section 9011(2) from  
9 the Leaking Underground Storage Tank Trust Fund may  
10 be used for conducting inspections, or for issuing orders  
11 or bringing actions under this subtitle—

12                   “(1) by a State (pursuant to section  
13           9003(h)(7)) acting under—

14                           “(A) a program approved under section  
15           9004; or

16                           “(B) State requirements regulating under-  
17           ground storage tanks that are similar or iden-  
18           tical to this subtitle; and

19                   “(2) by the Administrator, acting under this  
20           subtitle or a State program approved under section  
21           9004.

22   **“SEC. 9011. AUTHORIZATION OF APPROPRIATIONS.**

23           “In addition to amounts made available under section  
24 2007(f), there are authorized to be appropriated from the  
25 Leaking Underground Storage Tank Trust Fund—

1           “(1) to carry out section 9003(h)(12),  
2           \$200,000,000 for fiscal year 2002, to remain avail-  
3           able until expended; and

4           “(2) to carry out section 9010—

5                   “(A) \$50,000,000 for fiscal year 2002; and

6                   “(B) \$30,000,000 for each of fiscal years  
7           2003 through 2007.”.

8           (c) TECHNICAL AMENDMENTS.—

9           (1) Section 1001 of the Solid Waste Disposal  
10          Act (42 U.S.C. prec. 6901) is amended by striking  
11          the item relating to section 9010 and inserting the  
12          following:

          “Sec. 9010. Release prevention and compliance.  
          “Sec. 9011. Authorization of appropriations.”.

13          (2) Section 9001(3)(A) of the Solid Waste Dis-  
14          posal Act (42 U.S.C. 6991(3)(A)) is amended by  
15          striking “sustances” and inserting “substances”.

16          (3) Section 9003(f)(1) of the Solid Waste Dis-  
17          posal Act (42 U.S.C. 6991b(f)(1)) is amended by  
18          striking “subsection (c) and (d) of this section” and  
19          inserting “subsections (c) and (d)”.

20          (4) Section 9004(a) of the Solid Waste Disposal  
21          Act (42 U.S.C. 6991e(a)) is amended in the second  
22          sentence by striking “referred to” and all that fol-  
23          lows and inserting “referred to in subparagraph (A)  
24          or (B), or both, of section 9001(2).”.

1           (5) Section 9005 of the Solid Waste Disposal  
2    Act (42 U.S.C. 6991d) is amended—

3           (A) in subsection (a), by striking “study  
4    taking” and inserting “study, taking”;

5           (B) in subsection (b)(1), by striking  
6    “relevent” and inserting “relevant”; and

7           (C) in subsection (b)(4), by striking  
8    “Evironmental” and inserting “Environ-  
9    mental”.

10 **SEC. 823. AUTHORITY FOR WATER QUALITY PROTECTION**  
11 **FROM FUELS.**

12       (a) IN GENERAL.—Section 211(c) of the Clean Air  
13    Act (42 U.S.C. 7545(c)) is amended—

14       (1) in paragraph (1)(A)—

15           (A) by inserting “fuel or fuel additive or”  
16    after “Administrator any”; and

17           (B) by striking “air pollution which” and  
18    inserting “air pollution, or water pollution,  
19    that”;

20       (2) in paragraph (4)(B), by inserting “or water  
21    quality protection,” after “emission control,”; and

22       (3) by adding at the end the following:

23           “(5) BAN ON THE USE OF MTBE.—Not later  
24    than 4 years after the date of enactment of this

1 paragraph, the Administrator shall ban use of meth-  
2 yl tertiary butyl ether in motor vehicle fuel.”.

3 (b) NO EFFECT ON LAW REGARDING STATE AU-  
4 THORITY.—The amendments made by subsection (a) have  
5 no effect on the law in effect on the day before the date  
6 of enactment of this Act regarding the authority of States  
7 to limit the use of methyl tertiary butyl ether in gasoline.

8 **SEC. 824. WAIVER OF OXYGEN CONTENT REQUIREMENT**  
9 **FOR REFORMULATED GASOLINE.**

10 Section 211(k)(1) of the Clean Air Act (42 U.S.C.  
11 7545(k)(1)) is amended—

12 (1) by striking “Within 1 year after the enact-  
13 ment of the Clean Air Act Amendments of 1990,”  
14 and inserting the following:

15 “(A) IN GENERAL.—Not later than No-  
16 vember 15, 1991,”; and

17 (2) by adding at the end the following:

18 “(B) WAIVER OF OXYGEN CONTENT RE-  
19 QUIREMENT.—

20 “(i) AUTHORITY OF THE GOV-  
21 ERNOR.—

22 “(I) IN GENERAL.—Notwithstanding  
23 any other provision of this subsection, a  
24 Governor of a State, upon notification by  
25 the Governor to the Administrator during

1 the 90-day period beginning on the date of  
2 enactment of this subparagraph, or during  
3 the 90-day period beginning on the date on  
4 which an area in the State becomes a cov-  
5 ered area by operation of the second sen-  
6 tence of paragraph (10)(D), may waive the  
7 application of paragraphs (2)(B) and  
8 (3)(A)(v) to gasoline sold or dispensed in  
9 the State.

10 “(II) OPT-IN AREAS.—A Gov-  
11 ernor of a State that submits an ap-  
12 plication under paragraph (6) may, as  
13 part of that application, waive the ap-  
14 plication of paragraphs (2)(B) and  
15 (3)(A)(v) to gasoline sold or dispensed  
16 in the State.

17 “(ii) TREATMENT AS REFORMULATED  
18 GASOLINE.—In the case of a State for  
19 which the Governor invokes the waiver de-  
20 scribed in clause (i), gasoline that complies  
21 with all provisions of this subsection other  
22 than paragraphs (2)(B) and (3)(A)(v) shall  
23 be considered to be reformulated gasoline  
24 for the purposes of this subsection.

1 “(iii) EFFECTIVE DATE OF WAIVER.—

2 A waiver under clause (i) shall take effect  
3 on the earlier of—

4 “(I) the date on which the per-  
5 formance standards under subpara-  
6 graph (C) take effect; or

7 “(II) the date that is 270 days  
8 after the date of enactment of this  
9 subparagraph.

10 “(C) MAINTENANCE OF TOXIC AIR POL-  
11 LUTANT EMISSION REDUCTIONS.—

12 “(i) IN GENERAL.—As soon as prac-  
13 ticable after the date of enactment of this  
14 subparagraph, the Administrator shall—

15 “(I) promulgate regulations con-  
16 sistent with subparagraph (A) and  
17 paragraph (3)(B)(ii) to ensure that  
18 reductions of toxic air pollutant emis-  
19 sions achieved under the reformulated  
20 gasoline program under this section  
21 before the date of enactment of this  
22 subparagraph are maintained in  
23 States for which the Governor waives  
24 the oxygenate requirement under sub-  
25 paragraph (B)(i); or



1 “(II) determine that the require-  
2 ment described in clause (iv)—

3 “(aa) is consistent with the  
4 bases for performance standards  
5 described in clause (ii); and

6 “(bb) shall be deemed to be  
7 the performance standards under  
8 clause (ii) and shall be applied in  
9 accordance with clause (iii).

10 “(ii) PADD PERFORMANCE STAND-  
11 ARDS.—The Administrator, in regulations  
12 promulgated under clause (i)(I), shall es-  
13 tablish annual average performance stand-  
14 ards for each Petroleum Administration for  
15 Defense District (referred to in this sub-  
16 paragraph as a “PADD”) based on—

17 “(I) the average of the annual  
18 aggregate reductions in emissions of  
19 toxic air pollutants achieved under the  
20 reformulated gasoline program in each  
21 PADD during calendar years 1999  
22 and 2000, determined on the basis of  
23 the 1999 and 2000 Reformulated  
24 Gasoline Survey Data, as collected by  
25 the Administrator; and

1 “(II) such other information as  
2 the Administrator determines to be  
3 appropriate.

4 “(iii) APPLICABILITY.—

5 “(I) IN GENERAL.—The perform-  
6 ance standards under this subpara-  
7 graph shall be applied on an annual  
8 average importer or refinery-by-refin-  
9 ery basis to reformulated gasoline that  
10 is sold or introduced into commerce in  
11 a State for which the Governor waives  
12 the oxygenate requirement under sub-  
13 paragraph (B)(i).

14 “(II) MORE STRINGENT RE-  
15 QUIREMENTS.—The performance  
16 standards under this subparagraph  
17 shall not apply to the extent that any  
18 requirement under section 202(l) is  
19 more stringent than the performance  
20 standards.

21 “(III) STATE STANDARDS.—The  
22 performance standards under this  
23 subparagraph shall not apply in any  
24 State that has received a waiver under  
25 section 209(b).

1 “(IV) CREDIT PROGRAM.—The  
2 Administrator shall provide for the  
3 granting of credits for exceeding the  
4 performance standards under this  
5 subparagraph in the same manner as  
6 provided in paragraph (7).

7 “(iv) STATUTORY PERFORMANCE  
8 STANDARDS.—

9 “(I) IN GENERAL.—Subject to  
10 subclause (IV), if the regulations  
11 under clause (i)(I) have not been pro-  
12 mulgated by the date that is 270 days  
13 after the date of enactment of this  
14 subparagraph, the requirement de-  
15 scribed in subclause (III) shall be  
16 deemed to be the performance stand-  
17 ards under clause (ii) and shall be ap-  
18 plied in accordance with clause (iii).

19 “(II) PUBLICATION IN FEDERAL  
20 REGISTER.—Not later than 30 days  
21 after the date of enactment of this  
22 subparagraph, the Administrator shall  
23 publish in the Federal Register, for  
24 each PADD, the percentage equal to  
25 the average of the annual aggregate

1 reductions in the PADD described in  
2 clause (ii)(I).

3 “(III) TOXIC AIR POLLUTANT  
4 EMISSIONS.—The annual aggregate  
5 emissions of toxic air pollutants from  
6 baseline vehicles when using reformu-  
7 lated gasoline in each PADD shall be  
8 not greater than—

9 “(aa) the aggregate emis-  
10 sions of toxic air pollutants from  
11 baseline vehicles when using  
12 baseline gasoline in the PADD;  
13 reduced by

14 “(bb) the quantity obtained  
15 by multiplying the aggregate  
16 emissions described in item (aa)  
17 for the PADD by the percentage  
18 published under subclause (II)  
19 for the PADD.

20 “(IV) SUBSEQUENT REGULA-  
21 TIONS.—Through promulgation of  
22 regulations under clause (i)(I), the  
23 Administrator may modify the per-  
24 formance standards established under  
25 subclause (I) to require each PADD

1 to achieve a greater percentage reduc-  
2 tion than the percentage published  
3 under subclause (II) for the PADD.”.

4 **SEC. 825. PUBLIC HEALTH AND ENVIRONMENTAL IMPACTS**  
5 **OF FUELS AND FUEL ADDITIVES.**

6 Section 211(b) of the Clean Air Act (42 U.S.C.  
7 7545(b)) is amended—

8 (1) in paragraph (2)—

9 (A) by striking “may also” and inserting  
10 “shall, on a regular basis,”; and

11 (B) by striking subparagraph (A) and in-  
12 serting the following:

13 “(A) to conduct tests to determine poten-  
14 tial public health and environmental effects of  
15 the fuel or additive (including carcinogenic,  
16 teratogenic, or mutagenic effects); and”;

17 (2) by adding at the end the following:

18 “(4) ETHYL TERTIARY BUTYL ETHER.—

19 “(A) IN GENERAL.—Not later than 2 years  
20 after the date of enactment of this paragraph,  
21 the Administrator shall—

22 “(i) conduct a study on the effects on  
23 public health, air quality, and water re-  
24 sources of increased use of, and the feasi-

1 bility of using as substitutes for methyl  
2 tertiary butyl ether in gasoline—

3 “(I) ethyl tertiary butyl ether;  
4 and

5 “(II) other ethers, as determined  
6 by the Administrator; and

7 “(ii) submit to the Committee on En-  
8 ergy and Commerce of the House of Rep-  
9 resentatives and the Committee on Envi-  
10 ronment and Public Works of the Senate a  
11 report describing the results of the study.

12 “(B) CONTRACTS FOR STUDY.—In car-  
13 rying out this paragraph, the Administrator  
14 may enter into 1 or more contracts with non-  
15 governmental entities.”.

16 **SEC. 826. ANALYSES OF MOTOR VEHICLE FUEL CHANGES.**

17 Section 211 of the Clean Air Act (42 U.S.C. 7545)  
18 is amended—

19 (1) by redesignating subsection (o) as sub-  
20 section (p); and

21 (2) by inserting after subsection (n) the fol-  
22 lowing:

23 “(o) ANALYSES OF MOTOR VEHICLE FUEL CHANGES  
24 AND EMISSIONS MODEL.—

25 “(1) ANTI-BACKSLIDING ANALYSIS.—

1           “(A) DRAFT ANALYSIS.—Not later than 4  
2           years after the date of enactment of this sub-  
3           section, the Administrator shall publish for pub-  
4           lic comment a draft analysis of the changes in  
5           emissions of air pollutants and air quality due  
6           to the use of motor vehicle fuel and fuel addi-  
7           tives resulting from implementation of the  
8           amendments made by the Federal Reformulated  
9           Fuels Act of 2002.

10           “(B) FINAL ANALYSIS.—After providing a  
11           reasonable opportunity for comment but not  
12           later than 5 years after the date of enactment  
13           of this subsection, the Administrator shall pub-  
14           lish the analysis in final form.

15           “(2) EMISSIONS MODEL.—For the purposes of  
16           this subsection, as soon as the necessary data are  
17           available, the Administrator shall develop and final-  
18           ize an emissions model that reasonably reflects the  
19           effects of fuel characteristics or components on emis-  
20           sions from vehicles in the motor vehicle fleet during  
21           calendar year 2005.”.

22   **SEC. 827. ADDITIONAL OPT-IN AREAS UNDER REFORMU-**  
23   **LATED GASOLINE PROGRAM.**

24           Section 211(k)(6) of the Clean Air Act (42 U.S.C.  
25   7545(k)(6)) is amended—

1           (1) by striking “(6) OPT-IN AREAS.—(A)  
2       Upon” and inserting the following:

3           “(6) OPT-IN AREAS.—

4               “(A) CLASSIFIED AREAS.—

5                   “(i) IN GENERAL.—Upon”;

6           (2) in subparagraph (B), by striking “(B) If”  
7       and inserting the following:

8               “(ii) EFFECT OF INSUFFICIENT DO-  
9               MESTIC CAPACITY TO PRODUCE REFORMU-  
10              LATED GASOLINE.—If”;

11          (3) in subparagraph (A)(ii) (as so redesign-  
12       nated)—

13               (A) in the first sentence, by striking “sub-  
14       paragraph (A)” and inserting “clause (i)”; and

15               (B) in the second sentence, by striking  
16       “this paragraph” and inserting “this subpara-  
17       graph”; and

18          (4) by adding at the end the following:

19               “(B) NONCLASSIFIED AREAS.—

20                   “(i) IN GENERAL.—In accordance  
21       with section 110, a State may submit to  
22       the Administrator, and the Administrator  
23       may approve, a State implementation plan  
24       revision that provides for application of the  
25       prohibition specified in paragraph (5) in



any portion of the State that is not a covered area or an area referred to in subparagraph (A)(i).

“(ii) PERIOD OF EFFECTIVENESS.— Under clause (i), the State implementation plan shall establish a period of effectiveness for applying the prohibition specified in paragraph (5) to a portion of a State that—

“(I) commences not later than 1 year after the date of approval by the Administrator of the State implementation plan; and

“(II) ends not earlier than 4 years after the date of commencement under subclause (I).”.

**SEC. 828. MTBE MERCHANT PRODUCER CONVERSION ASSISTANCE.**

Section 211(c) of the Clean Air Act (42 U.S.C. 7545(c)) (as amended by section 823(a)(3)) is amended by adding at the end the following:

“(6) MTBE MERCHANT PRODUCER CONVERSION ASSISTANCE.—

“(A) IN GENERAL.—The Administrator may make grants to merchant producers of

1 methyl tertiary butyl ether in the United States  
2 to assist the producers in the conversion of eli-  
3 gible production facilities described in subpara-  
4 graph (B) to the production of other fuel addi-  
5 tives that—

6 “(i) will be consumed in nonattain-  
7 ment areas;

8 “(ii) will assist the nonattainment  
9 areas in achieving attainment with a na-  
10 tional primary ambient air quality stand-  
11 ard;

12 “(iii) will not degrade air quality or  
13 surface or ground water quality or re-  
14 sources; and

15 “(iv) have been registered and tested  
16 in accordance with the requirements of this  
17 section.

18 “(B) ELIGIBLE PRODUCTION FACILI-  
19 TIES.—A production facility shall be eligible to  
20 receive a grant under this paragraph if the pro-  
21 duction facility—

22 “(i) is located in the United States;  
23 and

1 “(ii) produced methyl tertiary butyl  
2 ether for consumption in nonattainment  
3 areas during the period—

4 “(I) beginning on the date of en-  
5 actment of this paragraph; and

6 “(II) ending on the effective date  
7 of the ban on the use of methyl ter-  
8 tiary butyl ether under paragraph (5).

9 “(C) AUTHORIZATION OF APPROPRIA-  
10 TIONS.—There is authorized to be appropriated  
11 to carry out this paragraph \$250,000,000 for  
12 each of fiscal years 2002 through 2004.”.

13 **Subtitle D—Additional Fuel**  
14 **Efficiency Measures**

15 **SEC. 831. FUEL EFFICIENCY OF THE FEDERAL FLEET OF**  
16 **AUTOMOBILES.**

17 Section 32917 of title 49, United States Code, is  
18 amended to read as follows:

19 **“§ 32917. Standards for executive agency automobiles**

20 “(a) BASELINE AVERAGE FUEL ECONOMY.—The  
21 head of each executive agency shall determine, for all auto-  
22 mobiles in the agency’s fleet of automobiles that were  
23 leased or bought as a new vehicle in fiscal year 1999, the  
24 average fuel economy for such automobiles. For the pur-  
25 poses of this section, the average fuel economy so deter-

1 mined shall be the baseline average fuel economy for the  
2 agency's fleet of automobiles.

3 “(b) INCREASE OF AVERAGE FUEL ECONOMY.—The  
4 head of an executive agency shall manage the procurement  
5 of automobiles for that agency in such a manner that—

6 “(1) not later than September 30, 2003, the av-  
7 erage fuel economy of the new automobiles in the  
8 agency's fleet of automobiles is not less than 1 mile  
9 per gallon higher than the baseline average fuel  
10 economy determined under subsection (a) for that  
11 fleet; and

12 “(2) not later than September 30, 2005, the av-  
13 erage fuel economy of the new automobiles in the  
14 agency's fleet of automobiles is not less than 3 miles  
15 per gallon higher than the baseline average fuel  
16 economy determined under subsection (a) for that  
17 fleet.

18 “(c) CALCULATION OF AVERAGE FUEL ECONOMY.—  
19 Average fuel economy shall be calculated for the purposes  
20 of this section in accordance with guidance which the Sec-  
21 retary of Transportation shall prescribe for the implemen-  
22 tation of this section.

23 “(d) DEFINITIONS.—In this section:

1           “(1) The term ‘automobile’ does not include  
2           any vehicle designed for combat-related missions,  
3           law enforcement work, or emergency rescue work.

4           “(2) The term ‘executive agency’ has the mean-  
5           ing given that term in section 105 of title 5.

6           “(3) The term ‘new automobile’, with respect to  
7           the fleet of automobiles of an executive agency,  
8           means an automobile that is leased for at least 60  
9           consecutive days or bought, by or for the agency,  
10          after September 30, 1999.”.

11 **SEC. 832. ASSISTANCE FOR STATE PROGRAMS TO RETIRE**  
12 **FUEL-INEFFICIENT MOTOR VEHICLES.**

13          (a) ESTABLISHMENT.—The Secretary shall establish  
14 a program, to be known as the “National Motor Vehicle  
15 Efficiency Improvement Program.” Under this program,  
16 the Secretary shall provide grants to States to operate pro-  
17 grams to offer owners of passenger automobiles and light-  
18 duty trucks manufactured in model years more than 15  
19 years prior to the fiscal year in which appropriations are  
20 made under subsection (d) financial incentives to  
21 voluntarily—

22           (1) scrap such automobiles and to replace them  
23           with automobiles with higher fuel efficiency; or

24           (2) repair such vehicles to improve their fuel  
25           economy.

1       (b) STATE PLAN.—Not later than 180 days after the  
2 date of enactment of an appropriations act containing  
3 funds authorized under subsection (d), to be eligible to re-  
4 ceive funds under the program, the Governor of a State  
5 shall submit to the Secretary a plan to carry out a pro-  
6 gram under this subtitle in that State.

7       (c) ELIGIBILITY CRITERIA.—The Secretary shall ap-  
8 prove a State plan and provide the funds under subsection  
9 (d), if the State plan—

10           (1) for voluntary vehicle scrappage programs—

11               (A) requires that all passenger automobiles  
12 and light-duty trucks turned in be scrapped;

13               (B) requires that prior to scrapping a vehi-  
14 cle, the state provide public notification of the  
15 intent to scrap and allow for the salvage of val-  
16 uable parts from the vehicle;

17               (C) requires that all passenger automobiles  
18 and light-duty trucks turned in be currently  
19 registered in the State in order to be eligible;

20               (D) requires that all passenger automobiles  
21 and light-duty trucks turned in be operational  
22 at the time that they are turned in;

23               (E) restricts automobile owners (except  
24 not-for-profit organizations) from turning in

1 more than one passenger automobile and one  
2 light-duty truck in a 12-month period;

3 (F) provides an appropriate payment to  
4 the person recycling the scrapped passenger  
5 automobile or light-duty truck for each turned-  
6 in passenger automobile or light-duty truck;

7 (G) provides a minimum payment to the  
8 automobile owner for each passenger auto-  
9 mobile and light-duty truck turned in;

10 (H) provides, in addition to the payment  
11 under subparagraph (G), an additional credit  
12 that may be redeemed by the owner of the  
13 turned-in passenger automobile or light-duty  
14 truck at the time of purchase of new fuel-effi-  
15 cient automobile; and

16 (I) estimates the fuel efficiency benefits of  
17 the program, and reports the estimated results  
18 to the Secretary annually; and

19 (2) for voluntary vehicle repair programs—

20 (A) requires the vehicle owner contribute  
21 at least 20 percent of the cost of the repairs;

22 (B) sets a ceiling beyond which the vehicle  
23 owner is responsible for the cost of repairs;

1           (C) allows the vehicle owner to opt out of  
2           the program if the cost of the repairs is consid-  
3           ered to be too great; and

4           (D) estimates the fuel economy benefits of  
5           the program and reports the estimated results  
6           to the Secretary annually.

7       (d) AUTHORIZATION OF APPROPRIATIONS.—There  
8   are hereby authorized to be appropriated to the Secretary  
9   to carry out this section such sums as may be necessary,  
10  to remain available until expended.

11       (e) ALLOCATION FORMULA.—The amounts appro-  
12  priated pursuant to subsection (d) shall be allocated  
13  among the States on the basis of the population of the  
14  States as contained in the most recent reliable census data  
15  available from the Bureau of the Census, Department of  
16  Commerce, for all States at the time that the Secretary  
17  needs to compute shares under this subsection.

18       (f) DEFINITIONS.—In this section:

19           (1) AUTOMOBILE.—The term “automobile” has  
20       the meaning given such term in section 32901(3) of  
21       title 49, United States Code.

22           (2) FUEL-EFFICIENT AUTOMOBILE.—

23               (A) The term “fuel-efficient automobile”  
24       means a passenger automobile or a light-duty  
25       truck that has an average fuel economy greater



1           than the average fuel economy standard pre-  
2           scribed pursuant to section 32902 of title 49,  
3           United States Code, or other law, applicable to  
4           such passenger automobile or light-duty truck.

5           (B) The term “average fuel economy” has  
6           the meaning given such term in section  
7           32901(5) of title 49, United States Code.

8           (C) The term “average fuel economy  
9           standard” has the meaning given such term in  
10          section 32901(6) of title 49, United States  
11          Code.

12          (D) The term “fuel economy” has the  
13          meaning given such term in section 32901(10)  
14          of title 49, United States Code.

15          (3) LIGHT-DUTY TRUCK.—The term “light-duty  
16          truck” means an automobile that is not a passenger  
17          automobile. Such term shall include a pickup truck,  
18          a van, or a four-wheel-drive general utility vehicle, as  
19          those terms are defined in section 600.002–85 of  
20          title 40, Code of Federal Regulations.

21          (4) PASSENGER AUTOMOBILE.—The term “pas-  
22          senger automobile” has the meaning given such term  
23          by section 32901(16) of title 49, United States  
24          Code.

1           (5) SECRETARY.—The term “Secretary” means  
2           the Secretary of Energy.

3           (6) STATE.—The term “State” means any of  
4           the several States and the District of Columbia.

5   **SEC. 833. IDLING REDUCTION SYSTEMS IN HEAVY DUTY VE-**  
6                           **HICLES.**

7           Title III of the Energy Policy and Conservation Act  
8   (42 U.S.C. 6291 et seq.) is amended by adding at the end  
9   the following:

10                   **“PART K—REDUCING TRUCK IDLING**

11                   **“SEC. 400AAA. REDUCING TRUCK IDLING.**

12           “(a) STUDY.—Not later than 18 months after the  
13   date of enactment of this section, the Secretary shall, in  
14   consultation with the Secretary of Transportation, com-  
15   mence a study to analyze the potential fuel savings result-  
16   ing from long duration idling of main drive engines in  
17   heavy-duty vehicles.

18           “(b) REGULATIONS.—Upon completion of the study  
19   under subsection (a), the Secretary may issue regulations  
20   requiring the installation of idling reduction systems on  
21   all newly manufactured heavy duty vehicles.

22           “(c) DEFINITIONS.—As used in this section:

23                   “(1) The term ‘heavy-duty vehicle’ means a ve-  
24           hicle that has a gross vehicle weight rating greater

1       than 8,500 pounds and is powered by a diesel en-  
2       gine.

3               “(2) The term ‘idling reduction system’ means  
4       a device or system of devices used to reduce long du-  
5       ration idling of a diesel engine in a vehicle.

6               “(3) The term ‘long duration idling’ means the  
7       operation of a main drive engine of a heavy-duty ve-  
8       hicle for a period of more than 15 consecutive min-  
9       utes when the main drive engine is not engaged in  
10      gear, except that such term does not include idling  
11      as a result of traffic congestion or other impedi-  
12      ments to the movement of a heavy-duty vehicle.

13              “(4) The term ‘vehicle’ has the meaning given  
14      such term in section 4 of title 1, United States  
15      Code.”.

16 **TITLE IX—ENERGY EFFICIENCY**  
17 **AND ASSISTANCE TO LOW IN-**  
18 **COME CONSUMERS**

19 **Subtitle A—Low Income Assistance**  
20 **and State Energy Programs**

21 **SEC. 901. INCREASED FUNDING FOR LIHEAP, WEATHERIZA-**  
22 **TION ASSISTANCE, AND STATE ENERGY**  
23 **GRANTS.**

24       (a) LIHEAP.—(1) Section 2602(b) of the Low-In-  
25 come Home Energy Assistance Act of 1981 (42 U.S.C.

1 8621(b)) is amended by striking the first sentence and in-  
2 serting the following: “There are authorized to be appro-  
3 priated to carry out the provisions of this title (other than  
4 section 2607A), \$3,400,000,000 for each of fiscal years  
5 2003 through 2005.”.

6 (2) Section 2602(e) of the Low-Income Home Energy  
7 Assistance Act of 1981 (42 U.S.C. 8621(e) is amended  
8 by striking “\$600,000,000” and inserting  
9 “\$1,000,000,000”.

10 (3) Section 2609A(a) of the Low-Income Energy As-  
11 sistance Act of 1981 (42 U.S.C. 8628a(a)) is amended by  
12 striking “not more than \$300,000” and inserting: “not  
13 more than \$750,000”.

14 (b) WEATHERIZATION ASSISTANCE.—Section 422 of  
15 the Energy Conservation and Production Act (42 U.S.C.  
16 6872) is amended by striking “for fiscal years 1999  
17 through 2003 such sums as may be necessary.” and in-  
18 serting: “\$325,000,000 for fiscal year 2003,  
19 \$400,000,000 for fiscal year 2004, and \$500,000,000 for  
20 fiscal year 2005.”.

21 **SEC. 902. STATE ENERGY PROGRAMS.**

22 (a) STATE ENERGY CONSERVATION PLANS.—Section  
23 362 of the Energy Policy and Conservation Act (42 U.S.C.  
24 6322)) is amended by adding at the end the following:

1       “(g) The Secretary shall, at least once every three  
2 years, invite the Governor of each State to review and,  
3 if necessary, revise the energy conservation plan of the  
4 State submitted under subsection (b) or (e). Such reviews  
5 should consider the energy conservation plans of other  
6 States within the region, and identify opportunities and  
7 actions that may be carried out in pursuit of common en-  
8 ergy conservation goals.”.

9       (b) STATE ENERGY CONSERVATION GOALS.—Section  
10 364 of the Energy Policy and Conservation Act (42 U.S.C.  
11 6324) is amended to read as follows:

12       “SEC. 364. Each State energy conservation plan with  
13 respect to which assistance is made available under this  
14 part on or after the date of enactment of the Energy Pol-  
15 icy Act of 2002 shall contain a goal, consisting of an im-  
16 provement of 25 percent or more in the efficiency of use  
17 of energy in the State concerned in calendar year 2010  
18 as compared to calendar year 1990, and may contain in-  
19 terim goals.”.

20       (c) STATE ENERGY CONSERVATION GRANTS.—Sec-  
21 tion 365(f) of the Energy Policy and Conservation Act (42  
22 U.S.C. 6325(f)) is amended by striking “for fiscal years  
23 1999 through 2003 such sums as may be necessary.” and  
24 inserting: “\$100,000,000 for each of fiscal years 2003 and

1 2004; \$125,000,000 for fiscal year 2005; and such sums  
2 as may be necessary for each fiscal year thereafter.”.

3 **SEC. 903. ENERGY EFFICIENT SCHOOLS.**

4 (a) ESTABLISHMENT.—There is established in the  
5 Department of Energy the High Performance Schools  
6 Program (in this section referred to as the “Program”).

7 (b) GRANTS.—The Secretary of Energy may make  
8 grants to a State energy office—

9 (1) to assist school districts in the State to im-  
10 prove the energy efficiency of school buildings;

11 (2) to administer the Program; and

12 (3) to promote participation in the Program.

13 (c) GRANTS TO ASSIST SCHOOL DISTRICTS.—The  
14 Secretary shall condition grants under subsection (b)(1)  
15 on the State energy office using the grants to assist school  
16 districts that have demonstrated—

17 (1) a need for the grants to build additional  
18 school buildings to meet increasing elementary or  
19 secondary enrollments or to renovate existing school  
20 buildings; and

21 (2) a commitment to use the grant funds to de-  
22 velop high performance school buildings in accord-  
23 ance with a plan that the State energy office, in con-  
24 sultation with the State educational agency, has de-

1       terminated is feasible and appropriate to achieve the  
2       purposes for which the grant is made.

3       (d) GRANTS FOR ADMINISTRATION.—Grants under  
4 subsection (b)(2) shall be used to—

5           (1) evaluate compliance by school districts with  
6       requirements of this section;

7           (2) distribute information and materials to  
8       clearly define and promote the development of high  
9       performance school buildings for both new and exist-  
10      ing facilities;

11          (3) organize and conduct programs for school  
12      board members, school personnel, architects, engi-  
13      neers, and others to advance the concepts of high  
14      performance school buildings;

15          (4) obtain technical services and assistance in  
16      planning and designing high performance school  
17      buildings; or

18          (5) collect and monitor data and information  
19      pertaining to the high performance school building  
20      projects.

21      (e) GRANTS TO PROMOTE PARTICIPATION.—Grants  
22 under subsection (b)(3) shall be used for promotional and  
23 marketing activities, including facilitating private and  
24 public financing, promoting the use of energy savings per-  
25 formance contracts, working with school administrations,

1 students, and communities, and coordinating public ben-  
2 efit programs.

3 (f) SUPPLEMENTING GRANT FUNDS.—The State en-  
4 ergy office shall encourage qualifying school districts to  
5 supplement funds awarded pursuant to this section with  
6 funds from other sources in the implementation of their  
7 plans.

8 (g) ALLOCATIONS.—Except as provided in sub-  
9 section (h), funds appropriated to carry out this sec-  
10 tion shall be allocated as follows:

11 (1) 70 percent shall be used to make grants  
12 under subsection (b)(1);

13 (2) 15 percent shall be used to make grants  
14 under subsection (b)(2); and

15 (3) 15 percent shall be used to make grants  
16 under subsection (b)(3).

17 (h) OTHER FUNDS.—The Secretary of Energy may  
18 retain an amount, not to exceed \$300,000 per year, to  
19 assist State energy offices in coordinating and imple-  
20 menting the Program. Such funds may be used to develop  
21 reference materials to further define the principles and cri-  
22 teria to achieve high performance school buildings.

23 (i) AUTHORIZATION OF APPROPRIATIONS.—For  
24 grants under subsection (b) there are authorized to be  
25 appropriated—



- 1 (1) \$200,000,000 for fiscal year 2003;
- 2 (2) \$210,000,000 for fiscal year 2004;
- 3 (3) \$220,000,000 for fiscal year 2005;
- 4 (4) \$230,000,000 for fiscal year 2006; and
- 5 (5) such sums as may be necessary for fiscal
- 6 year 2007 and each fiscal year thereafter through
- 7 fiscal year 2012.

8 (j) DEFINITIONS.—For purposes of this section:

9 (1) HIGH PERFORMANCE SCHOOL BUILDING.—  
10 The term “high performance school building” means  
11 a school building that, in its design, construction,  
12 operation, and maintenance—

13 (A) maximizes use of renewable energy and  
14 energy-efficient technologies and systems;

15 (B) is cost-effective on a life-cycle basis;

16 (C) achieves either—

17 (i) the applicable Energy Star build-  
18 ing energy performance ratings, or

19 (ii) energy consumption levels at least  
20 30 percent below those of the most recent  
21 version of ASHRAE Standard 90.1;

22 (D) uses affordable, environmentally pref-  
23 erable, and durable materials;

24 (E) enhances indoor environmental quality;

25 (F) protects and conserves water; and

1 (G) optimizes site potential.

2 (2) RENEWABLE ENERGY.—The term “renew-  
3 able energy” means energy produced by solar, wind,  
4 biomass, ocean, geothermal, or hydroelectric power.

5 (3) SCHOOL.—The term “school” means—

6 (A) an “elementary school” as that term is  
7 defined in section 14101(14) of the Elementary  
8 and Secondary Education Act of 1965 (20  
9 U.S.C. 8801(14)),

10 (B) a “secondary school” as that term is  
11 defined in section 14101(25) of the Elementary  
12 and Secondary Education Act of 1965 (20  
13 U.S.C. 8801(25)), or

14 (C) an elementary or secondary Indian  
15 school funded by the Bureau of Indian Affairs.

16 (4) STATE EDUCATIONAL AGENCY.—The term  
17 “State educational agency” has the same meaning  
18 given such term in section 14101(28) of the Elemen-  
19 tary and Secondary Education Act of 1965 (20  
20 U.S.C. 8801(28)).

21 (5) STATE ENERGY OFFICE.—The term “State  
22 energy office” means the State agency responsible  
23 for developing State energy conservation plans under  
24 section 362 of the Energy Policy and Conservation  
25 Act (42 U.S.C. 6322), or, if no such agency exists,

1       a State agency designated by the Governor of the  
2       State.

3   **SEC. 904. LOW INCOME COMMUNITY ENERGY EFFICIENCY**  
4                   **PILOT PROGRAM.**

5       (a) GRANTS.—The Secretary of Energy is authorized  
6   to make grants to private, non-profit community develop-  
7   ment organizations and Indian tribe economic develop-  
8   ment entities to improve energy efficiency, identify and de-  
9   velop alternative renewable and distributed energy sup-  
10  plies, and increase energy conservation in low income rural  
11  and urban communities.

12      (b) PURPOSE OF GRANTS.—The Secretary may make  
13  grants on a competitive basis to a community development  
14  organization for—

15           (1) investments that develop alternative renew-  
16   able and distributed energy supplies;

17           (2) energy efficiency projects and energy con-  
18   servation programs;

19           (3) studies and other activities that improve en-  
20   ergy efficiency in low income rural and urban com-  
21   munities;

22           (4) planning and development assistance for in-  
23   creasing the energy efficiency of buildings and facili-  
24   ties; and

1           (5) technical and financial assistance to local  
2       government and private entities on developing new  
3       renewable and distributed sources of power or com-  
4       bined heat and power generation.

5       (c) DEFINITION.—For purposes of this section, the  
6       term “Indian tribe” means any Indian tribe, band, nation,  
7       or other organized group or community, including any  
8       Alaskan Native Village or regional or village corporation  
9       as defined in or established pursuant to the Alaska Native  
10      Claims Settlement Act (43 U.S.C. 1601 et seq.), which  
11      is recognized as eligible for the special programs and serv-  
12      ices provided by the United States to Indians because of  
13      their status as Indians.

14      (d) AUTHORIZATION OF APPROPRIATIONS.—For the  
15      purposes of this section there are authorized to be appro-  
16      priated to the Secretary of Energy an amount not to ex-  
17      ceed \$10 million for fiscal year 2003 and each fiscal year  
18      thereafter through fiscal year 2005.

## 19           **Subtitle B—Federal Energy** 20           **Efficiency**

### 21      **SEC. 911. ENERGY MANAGEMENT REQUIREMENTS.**

22      (a) ENERGY REDUCTION GOALS.—Section 543(a)(1)  
23      of the National Energy Conservation Policy Act (42  
24      U.S.C. 8253(a)(1)) is amended to read as follows:

1           “(1) Subject to paragraph (2), each agency  
 2       shall apply energy conservation measures to, and  
 3       shall improve the design for the construction of, the  
 4       Federal buildings of the agency (including each in-  
 5       dustrial or laboratory facility) so that the energy  
 6       consumption per gross square foot of the Federal  
 7       buildings of the agency in fiscal years 2002 through  
 8       2011 is reduced, as compared with the energy con-  
 9       sumption per gross square foot of the Federal build-  
 10      ings of the agency in fiscal year 2000, by the per-  
 11      centage specified in the following table:

<b>“Fiscal Year</b>	<b>Percentage reduction</b>
2002 .....	2
2003 .....	4
2004 .....	6
2005 .....	8
2006 .....	10
2007 .....	12
2008 .....	14
2009 .....	16
2010 .....	18
2011 .....	20.”.

12       (b) REVIEW AND REVISION OF ENERGY PERFORM-  
 13      ANCE REQUIREMENT.—Section 543(a) of the National  
 14      Energy Conservation Policy Act (42 U.S.C. 8253(a)) is  
 15      further amended by adding at the end the following:

16           “(3) Not later than December 31, 2010, the  
 17       Secretary shall review the results of the implementa-  
 18       tion of the energy performance requirement estab-  
 19       lished under paragraph (1) and submit to Congress

1        recommendations concerning energy performance re-  
2        quirements for calendar years 2012 through 2021.”.

3        (c) EXCLUSIONS.—Section 543(c)(1) of the National  
4        Energy Conservation Policy Act (42 U.S.C. 8253(c)(1))  
5        is amended to read as follows:

6                “(1)(A) An agency may exclude, from the en-  
7        ergy performance requirement for a calendar year  
8        established under subsection (a) and the energy  
9        management requirement established under sub-  
10       section (b), any Federal building or collection of  
11       Federal buildings, if the head of the agency finds  
12       that—

13                “(i) compliance with those requirements  
14       would be impracticable;

15                “(ii) the agency has completed and sub-  
16       mitted all federally required energy manage-  
17       ment reports;

18                “(iii) the agency has achieved compliance  
19       with the energy efficiency requirements of this  
20       Act, the Energy Policy Act of 1992, Executives  
21       Orders, and other federal law; and

22                “(iv) the agency has implemented all prac-  
23       ticable, life-cycle cost-effective projects with re-  
24       spect to the Federal building or collection of  
25       Federal buildings to be excluded.

1           “(B) A finding of impracticability under sub-  
2       paragraph (A)(i) shall be based on—

3           “(i) the energy intensiveness of activities  
4       carried out in the Federal building or collection  
5       of Federal buildings; or

6           “(ii) the fact that the Federal building or  
7       collection of Federal buildings is used in the  
8       performance of a national security function.”.

9       (d) REVIEW BY SECRETARY.—Section 543(c)(2) of  
10   the National Energy Conservation Policy Act (42 U.S.C.  
11   8253(c)(2)) is amended—

12           (1) by striking “impracticability standards” and  
13       inserting “standards for exclusion”; and

14           (2) by striking “a finding of impracticability”  
15       and inserting “the exclusion”.

16       (e) CRITERIA.—Section 543(c) of the National En-  
17   ergy Conservation Policy Act (42 U.S.C. 8253(c)) is fur-  
18   ther amended by adding at the end the following:

19           “(3) Not later than 180 days after the date of  
20       enactment of this paragraph, the Secretary shall  
21       issue guidelines that establish criteria for exclusions  
22       under paragraph (1).”.

23       (f) REPORTS.—Section 548(b) of the National En-  
24   ergy Conservation Policy Act (42 U.S.C. 8258(b)) is  
25   amended—

1           (1) in the subsection heading, by inserting “The  
2       President and” before “Congress”; and

3           (2) by inserting “PRESIDENT AND” before  
4       “CONGRESS”.

5       (g) CONFORMING AMENDMENT.—Section 550(d) of  
6 the National Energy Conservation Policy Act (42 U.S.C.  
7 8258b(d)) is amended in the second sentence by striking  
8 “the 20 percent reduction goal established under section  
9 543(a) of the National Energy Conservation Policy Act  
10 (42 U.S.C. 8253(a)).” and inserting “each of the energy  
11 reduction goals established under section 543(a).”.

12 **SEC. 912. ENERGY USE MEASUREMENT AND ACCOUNT-**  
13 **ABILITY.**

14       Section 543 of the National Energy Conservation  
15 Policy Act (42 U.S.C. 8253) is further amended by adding  
16 at the end the following:

17       “(e) METERING OF ENERGY USE.—

18           “(1) DEADLINE.—By October 1, 2004, all Fed-  
19 eral buildings shall be metered or submetered in ac-  
20 cordance with guidelines established by the Sec-  
21 retary under paragraph (2).

22           “(2) GUIDELINES.—

23           “(A) IN GENERAL.—Not later than 180  
24 days after the date of enactment of this sub-  
25 section, the Secretary, in consultation with the



1 Department of Defense, the General Service  
2 Administration and representatives from the  
3 metering industry, energy services industry, na-  
4 tional laboratories, universities and federal fa-  
5 cility energy managers, shall establish guide-  
6 lines for agencies to carry out paragraph (1).

7 “(B) REQUIREMENTS FOR GUIDELINES.—

8 The guidelines shall—

9 “(i) take into consideration—

10 “(I) the cost of metering and  
11 submetering and the reduced cost of  
12 operation and maintenance expected  
13 to result from metering and sub-  
14 metering;

15 “(II) the extent to which meter-  
16 ing and submetering are expected to  
17 result in increased potential for en-  
18 ergy management, increased potential  
19 for energy savings and energy effi-  
20 ciency improvement, and cost and en-  
21 ergy savings due to utility contract  
22 aggregation; and

23 “(III) the measurement and  
24 verification protocols of the Depart-  
25 ment of Energy;

1                   “(ii) include recommendations con-  
2                   cerning the amount of funds and the num-  
3                   ber of trained personnel necessary to gath-  
4                   er and use the metering information to  
5                   track and reduce energy use;

6                   “(iii) establish 1 or more dates, not  
7                   later than 1 year after the date of issuance  
8                   of the guidelines, on which the requirement  
9                   specified in paragraph (1) shall take effect;  
10                  and

11                  “(iv) establish exclusions from the re-  
12                  quirement specified in paragraph (1) based  
13                  on the de minimus quantity of energy use  
14                  of a Federal building, industrial process, or  
15                  structure.

16                  “(f) USE OF ENERGY CONSUMPTION DATA IN FED-  
17                  ERAL BUILDINGS.—

18                  “(1) IN GENERAL.—Beginning not later than  
19                  January 1, 2003, each agency shall use, to the max-  
20                  imum extent practicable, for the purposes of efficient  
21                  use of energy and reduction in the cost of electricity  
22                  used in the Federal buildings of the agency, interval  
23                  consumption data that measure on a real-time or  
24                  daily basis consumption of electricity in the Federal  
25                  buildings of the agency.

1           “(2) PLAN.—As soon as practicable after the  
2           date of enactment of this subsection, in a report  
3           submitted by the agency under section 548(a), each  
4           agency shall submit to the Secretary a plan describ-  
5           ing how the agency will implement the requirement  
6           of paragraph (1), including how the agency will des-  
7           ignate personnel primarily responsible for achieving  
8           the requirement.”.

9   **SEC. 913. FEDERAL BUILDING PERFORMANCE STANDARDS.**

10          (a) REVISED STANDARDS.—Section 305(a) of the  
11   Energy Conservation and Production Act (42 U.S.C.  
12   6834(a)) is amended—

13               (1) in paragraph (2)(A), by striking “CABO  
14               Model Energy Code, 1992” and inserting “the 2000  
15               International Energy Conservation Code”; and

16               (2) by adding at the end the following:

17               “(3) REVISED FEDERAL BUILDING ENERGY EF-  
18               FICIENCY PERFORMANCE STANDARDS.—

19                       “(A) IN GENERAL.—Not later than 1 year  
20                       after the date of enactment of this paragraph,  
21                       the Secretary of Energy shall establish, by rule,  
22                       revised Federal building energy efficiency per-  
23                       formance standards that require that, if cost-  
24                       effective—

1           “(i) new commercial buildings and  
2           multifamily high rise residential buildings  
3           be constructed so as to achieve the applica-  
4           ble Energy Star building energy perform-  
5           ance ratings or energy consumption levels  
6           at least 30 percent below those of the most  
7           recent ASHRAE Standard 90.1, whichever  
8           results in the greater increase in energy ef-  
9           ficiency;

10           “(ii) new residential buildings (other  
11           than those described in clause (i)) be con-  
12           structed so as to achieve the applicable En-  
13           ergy Star building energy performance rat-  
14           ings or achieve energy consumption levels  
15           at least 30 percent below the requirements  
16           of the most recent version of the Inter-  
17           national Energy Conservation Code, which-  
18           ever results in the greater increase in en-  
19           ergy efficiency; and

20           “(iii) sustainable design principles are  
21           applied to the siting, design, and construc-  
22           tion of all new and replacement buildings.

23           “(B) ADDITIONAL REVISIONS.—Not later  
24           than 1 year after the date of approval of  
25           amendments to ASHRAE Standard 90.1 or the

1           2000 International Energy Conservation Code,  
2           the Secretary of Energy shall determine, based  
3           on the cost-effectiveness of the requirements  
4           under the amendments, whether the revised  
5           standards established under this paragraph  
6           should be updated to reflect the amendments.

7           “(C) STATEMENT ON COMPLIANCE OF NEW  
8           BUILDINGS.—In the budget request of the Fed-  
9           eral agency for each fiscal year and each report  
10          submitted by the Federal agency under section  
11          548(a) of the National Energy Conservation  
12          Policy Act (42 U.S.C. 8258(a)), the head of  
13          each Federal agency shall include—

14               “(i) a list of all new Federal buildings  
15               of the Federal agency; and

16               “(ii) a statement concerning whether  
17               the Federal buildings meet or exceed the  
18               revised standards established under this  
19               paragraph, including a monitoring and  
20               commissioning report that is in compliance  
21               with the measurement and verification pro-  
22               tocols of the Department of Energy.

23          “(D) AUTHORIZATION OF APPROPRIA-  
24          TIONS.—There are authorized to be appro-  
25          priated such sums as are necessary to carry out

1           this paragraph and to implement the revised  
2           standards established under this paragraph.”.

3           (b) ENERGY LABELING PROGRAM.—Section 305(a)  
4 of the Energy Conservation and Production Act (42  
5 U.S.C. 6834(a)) is further amended by adding at the end  
6 the following:

7           “(e) ENERGY LABELING PROGRAM.—The Secretary  
8 of Energy, in cooperation with the Administrator of the  
9 Environmental Protection Agency, shall develop an energy  
10 labeling program for new Federal buildings that exceed  
11 the revised standards established under subsection (a)(3)  
12 by 15 percent or more.”.

13 **SEC. 914. PROCUREMENT OF ENERGY EFFICIENT PROD-**  
14 **UCTS.**

15           (a) REQUIREMENTS.—Part 3 of title V of the Na-  
16 tional Energy Conservation Policy Act is amended by add-  
17 ing at the end the following:

18 **“SEC. 552. FEDERAL PROCUREMENT OF ENERGY EFFI-**  
19 **CIENT PRODUCTS.**

20           “(a) DEFINITIONS.—In this section:

21               “(1) ENERGY STAR PRODUCT.—The term ‘En-  
22           ergy Star product’ means a product that is rated for  
23           energy efficiency under an Energy Star program.

24               “(2) ENERGY STAR PROGRAM.—The term ‘En-  
25           ergy Star program’ means the program established

1 by section 324A of the Energy Policy and Conserva-  
2 tion Act.

3 “(3) EXECUTIVE AGENCY.—The term ‘executive  
4 agency’ has the meaning given the term in section  
5 4 of the Office of Federal Procurement Policy Act  
6 (41 U.S.C. 403).

7 “(4) FEMP DESIGNATED PRODUCT.—The term  
8 ‘FEMP designated product’ means a product that is  
9 designated under the Federal Energy Management  
10 Program of the Department of Energy as being  
11 among the highest 25 percent of equivalent products  
12 for energy efficiency.

13 “(b) PROCUREMENT OF ENERGY EFFICIENT PROD-  
14 UCTS.—

15 “(1) REQUIREMENT.—To meet the require-  
16 ments of an executive agency for an energy con-  
17 suming product, the head of the executive agency  
18 shall, except as provided in paragraph (2), procure—

19 “(A) an Energy Star product; or

20 “(B) a FEMP designated product.

21 “(2) EXCEPTIONS.—The head of an executive  
22 agency is not required to procure an Energy Star  
23 product or FEMP designated product under para-  
24 graph (1) if—

1           “(A) an Energy Star product or FEMP  
2           designated product is not cost effective over the  
3           life cycle of the product; or

4           “(B) no Energy Star product or FEMP  
5           designated product is reasonably available that  
6           meets the requirements of the executive agency.

7           “(3) PROCUREMENT PLANNING.—The head of  
8           an executive agency shall incorporate into the speci-  
9           fications for all procurements involving energy con-  
10          suming products and systems, and into the factors  
11          for the evaluation of offers received for the procure-  
12          ment, criteria for energy efficiency that are con-  
13          sistent with the criteria used for rating Energy Star  
14          products and for rating FEMP designated products.

15          “(c) LISTING OF ENERGY EFFICIENT PRODUCTS IN  
16          FEDERAL CATALOGS.—Energy Star and FEMP des-  
17          ignated products shall be clearly identified and promi-  
18          nently displayed in any inventory or listing of products  
19          by the General Services Administration or the Defense Lo-  
20          gistics Agency.”.

21          (b) CONFORMING AMENDMENT.—The table of con-  
22          tents in section 1(b) of the National Energy Conservation  
23          Policy Act (42 U.S.C. 8201 note) is amended by inserting  
24          after the item relating to section 551 the following:

“Sec. 552. Federal Government procurement of energy efficient products.”.



1       (c) REGULATIONS.—Not later than 180 days after  
2 the effective date specified in subsection (f), the Secretary  
3 of Energy shall issue guidelines to carry out section 552  
4 of the National Energy Conservation Policy Act (as added  
5 by subsection (a)).

6       (d) DESIGNATION OF ENERGY STAR PRODUCTS.—  
7 The Administrator of the Environmental Protection Agen-  
8 cy and the Secretary of Energy shall expedite the process  
9 of designating products as Energy Star products (as de-  
10 fined in section 552 of the National Energy Conservation  
11 Policy Act (as added by subsection (a))).

12       (e) DESIGNATION OF ELECTRIC MOTORS.—In the  
13 case of electric motors of 1 to 500 horsepower, agencies  
14 shall select only premium efficient motors that meet a  
15 standard designated by the Secretary. The Secretary shall  
16 designate such a standard within 120 days of the enact-  
17 ment of this paragraph, after considering the rec-  
18 ommendations of associated electric motor manufacturers  
19 and energy efficiency groups.

20       (f) EFFECTIVE DATE.—Subsection (a) and the  
21 amendment made by that subsection take effect on the  
22 date that is 180 days after the date of enactment of this  
23 Act.

1 **SEC. 915. REPEAL OF ENERGY SAVINGS PERFORMANCE**

2 **CONTRACT SUNSET.**

3 Section 801(c) of the National Energy Conservation  
4 Policy Act (42 U.S.C. 8287(c)) is repealed.

5 **SEC. 916. ENERGY SAVINGS PERFORMANCE CONTRACT**

6 **DEFINITIONS.**

7 (a) **ENERGY SAVINGS.**—Section 804(2) of the Na-  
8 tional Energy Conservation Policy Act (42 U.S.C.  
9 8287c(2)) is amended to read as follows:

10 “(2) The term energy savings means a reduc-  
11 tion in the cost of energy or water, from a base cost  
12 established through a methodology set forth in the  
13 contract, used in an existing federally owned build-  
14 ing or buildings or other federally owned facilities as  
15 a result of—

16 “(A) the lease or purchase of operating  
17 equipment, improvements, altered operation and  
18 maintenance, or technical services;

19 “(B) the increased efficient use of existing  
20 energy sources by cogeneration or heat recov-  
21 ery, excluding any cogeneration process for  
22 other than a federally owned building or build-  
23 ings or other federally owned facilities; or

24 “(C) the increased efficient use of existing  
25 water sources.”.

1       (b) ENERGY SAVINGS CONTRACT.—Section 804(3) of  
2 the National Energy Conservation Policy Act (42 U.S.C.  
3 8287c(3)) is amended to read as follows:

4           “(3) The terms ‘energy savings contract’ and  
5       ‘energy savings performance contract’ mean a con-  
6       tract which provides for the performance of services  
7       for the design, acquisition, installation, testing, oper-  
8       ation, and, where appropriate, maintenance and re-  
9       pair, of an identified energy or water conservation  
10      measure or series of measures at one or more loca-  
11      tions.”.

12      (c) ENERGY OR WATER CONSERVATION MEASURE.—  
13 Section 804(4) of the National Energy Conservation Pol-  
14 icy Act (42 U.S.C. 8287c(4)) is amended to read as fol-  
15 lows:

16           “(4) The term ‘energy or water conservation  
17      measure’ means—

18           “(A) an energy conservation measure, as  
19           defined in section 551(4) (42 U.S.C. 8259(4));  
20           or

21           “(B) a water conservation measure that  
22           improves water efficiency, is life cycle cost effec-  
23           tive, and involves water conservation, water re-  
24           cycling or reuse, more efficient treatment of  
25           wastewater or stormwater, improvements in op-

1           eration or maintenance efficiencies, retrofit ac-  
2           tivities or other related activities, not at a Fed-  
3           eral hydroelectric facility.”.

4   **SEC. 917. REVIEW OF ENERGY SAVINGS PERFORMANCE**  
5                   **CONTRACT PROGRAM.**

6           Within 180 days after the date of the enactment of  
7   this Act, the Secretary of Energy shall complete a review  
8   of the Energy Savings Performance Contract program to  
9   identify statutory, regulatory, and administrative obstacles  
10  that prevent Federal agencies from fully utilizing the pro-  
11  gram. In addition, this review shall identify all areas for  
12  increasing program flexibility and effectiveness, including  
13  audit and measurement verification requirements, ac-  
14  counting for energy use in determining savings, con-  
15  tracting requirements, and energy efficiency services cov-  
16  ered. The Secretary shall report these findings to the  
17  Committee on Energy and Commerce of the House of  
18  Representatives and the Committee on Energy and Nat-  
19  ural Resources of the Senate, and shall implement identi-  
20  fied administrative and regulatory changes to increase  
21  program flexibility and effectiveness to the extent that  
22  such changes are consistent with statutory authority.

23   **SEC. 918. FEDERAL ENERGY BANK.**

24           Part 3 of title V of the National Energy Conservation  
25  Policy Act is amended by adding at the end the following:

1 **“SEC. 553. FEDERAL ENERGY BANK.**

2 “(a) DEFINITIONS.—In this section:

3 “(1) BANK.—The term ‘Bank’ means the Fed-  
4 eral Energy Bank established by subsection (b).

5 “(2) ENERGY OR WATER EFFICIENCY  
6 PROJECT.—The term ‘energy or water efficiency  
7 project’ means a project that assists a Federal agen-  
8 cy in meeting or exceeding the energy or water effi-  
9 ciency requirements of—

10 “(A) this part;

11 “(B) title VIII;

12 “(C) subtitle F of title I of the Energy  
13 Policy Act of 1992 (42 U.S.C. 8262 et seq.); or

14 “(D) any applicable Executive order, in-  
15 cluding Executive Order No. 13123.

16 “(3) FEDERAL AGENCY.—The term ‘Federal  
17 agency’ means—

18 “(A) an Executive agency (as defined in  
19 section 105 of title 5, United States Code);

20 “(B) the United States Postal Service;

21 “(C) Congress and any other entity in the  
22 legislative branch; and

23 “(D) a Federal court and any other entity  
24 in the judicial branch.

25 “(b) ESTABLISHMENT OF BANK.—

1           “(1) IN GENERAL.—There is established in the  
2       Treasury of the United States a fund to be known  
3       as the ‘Federal Energy Bank’, consisting of—

4           “(A) such amounts as are deposited in the  
5       Bank under paragraph (2);

6           “(B) such amounts as are repaid to the  
7       Bank under subsection (c)(2)(D); and

8           “(C) any interest earned on investment of  
9       amounts in the Bank under paragraph (3).

10       “(2) DEPOSITS IN BANK.—

11           “(A) IN GENERAL.—Subject to the avail-  
12       ability of appropriations and to subparagraph  
13       (B), the Secretary of the Treasury shall deposit  
14       in the Bank an amount equal to \$250,000,000  
15       in fiscal year 2003 and in each fiscal year  
16       thereafter.

17           “(B) MAXIMUM AMOUNT IN BANK.—De-  
18       posits under subparagraph (A) shall cease be-  
19       ginning with the fiscal year following the fiscal  
20       year in which the amounts in the Bank (includ-  
21       ing amounts on loan from the Bank) become  
22       equal to or exceed \$1,000,000,000.

23       “(3) INVESTMENT OF AMOUNTS.—The Sec-  
24       retary of the Treasury shall invest such portion of  
25       the Bank as is not, in the judgment of the Sec-

1       retary, required to meet current withdrawals. Invest-  
2       ments may be made only in interest-bearing obliga-  
3       tions of the United States.

4       “(c) LOANS FROM THE BANK.—

5               “(1) IN GENERAL.—The Secretary of the  
6       Treasury shall transfer from the Bank to the Sec-  
7       retary such amounts as are appropriated to carry  
8       out the loan program under paragraph (2).

9               “(2) LOAN PROGRAM.—

10              “(A) ESTABLISHMENT.—

11                      “(i) IN GENERAL.—In accordance  
12       with subsection (d), the Secretary, in con-  
13       sultation with the Secretary of Defense,  
14       the Administrator of General Services, and  
15       the Director of the Office of Management  
16       and Budget, shall establish a program to  
17       make loans of amounts in the Bank to any  
18       Federal agency that submits an application  
19       satisfactory to the Secretary in order to  
20       pay the costs of a project described in sub-  
21       paragraph (C).

22                      “(ii) COMMENCEMENT OF OPER-  
23       ATIONS.—The Secretary may begin—

1                   “(I) accepting applications for  
2                   loans from the Bank in fiscal year  
3                   2002; and

4                   “(II) making loans from the  
5                   Bank in fiscal year 2003.

6                   “(B) ENERGY SAVINGS PERFORMANCE  
7                   CONTRACTING FUNDING.—To the extent prac-  
8                   ticable, an agency shall not submit a project for  
9                   which energy performance contracting funding  
10                  is available and is acceptable to the Federal  
11                  agency under title VIII.

12                  “(C) PURPOSES OF LOAN.—

13                  “(i) IN GENERAL.—A loan from the  
14                  Bank may be used to pay—

15                  “(I) the costs of an energy or  
16                  water efficiency project, or a renew-  
17                  able or alternative energy project, for  
18                  a new or existing Federal building (in-  
19                  cluding selection and design of the  
20                  project);

21                  “(II) the costs of an energy me-  
22                  tering plan and metering equipment  
23                  installed pursuant to section 543(e) or  
24                  for the purpose of verification of the  
25                  energy savings under an energy sav-



ings performance contract under title  
VIII; or

“(III) at the time of contracting,  
the costs of cofunding of an energy  
savings performance contract (includ-  
ing a utility energy service agreement)  
in order to shorten the payback period  
of the project that is the subject of  
the energy savings performance con-  
tract.

“(ii) LIMITATION.—A Federal agency  
may use not more than 10 percent of the  
amount of a loan under subclause (I) or  
(II) of clause (i) to pay the costs of admin-  
istration and proposal development (includ-  
ing data collection and energy surveys).

“(iii) RENEWABLE AND ALTERNATIVE  
ENERGY PROJECTS.—Not more than 25  
percent of the amount on loan from the  
Bank at any time may be loaned for re-  
newable energy and alternative energy  
projects (as defined by the Secretary in ac-  
cordance with applicable law (including  
Executive Orders)).

“(D) REPAYMENTS.—

1           “(i) IN GENERAL.—Subject to clauses  
2           (ii) through (iv), a Federal agency shall  
3           repay to the Bank the principal amount of  
4           a loan plus interest at a rate determined  
5           by the President, in consultation with the  
6           Secretary and the Secretary of the Treas-  
7           ury.

8           “(ii) WAIVER OR REDUCTION OF IN-  
9           TEREST.—The Secretary may waive or re-  
10          duce the rate of interest required to be  
11          paid under clause (i) if the Secretary de-  
12          termines that payment of interest by a  
13          Federal agency at the rate determined  
14          under that clause is not required to fund  
15          the operations of the Bank.

16          “(iii) DETERMINATION OF INTEREST  
17          RATE.—The interest rate determined  
18          under clause (i) shall be at a rate that is  
19          sufficient to ensure that, beginning not  
20          later than October 1, 2007, interest pay-  
21          ments will be sufficient to fully fund the  
22          operations of the Bank.

23          “(iv) INSUFFICIENCY OF APPROPRIA-  
24          TIONS.—

1                   “(I) REQUEST FOR APPROPRIA-  
2                   TIONS.—As part of the budget request  
3                   of the Federal agency for each fiscal  
4                   year, the head of each Federal agency  
5                   shall submit to the President a re-  
6                   quest for such amounts as are nec-  
7                   essary to make such repayments as  
8                   are expected to become due in the fis-  
9                   cal year under this subparagraph.

10                  “(II) SUSPENSION OF REPAY-  
11                  MENT REQUIREMENT.—If, for any fis-  
12                  cal year, sufficient appropriations are  
13                  not made available to a Federal agen-  
14                  cy to make repayments under this  
15                  subparagraph, the Bank shall suspend  
16                  the requirement of repayment under  
17                  this subparagraph until such appro-  
18                  priations are made available.

19                  “(E) FEDERAL AGENCY ENERGY BUDG-  
20                  ETS.—Until a loan is repaid, a Federal agency  
21                  budget submitted by the President to Congress  
22                  for a fiscal year shall not be reduced by the  
23                  value of energy savings accrued as a result of  
24                  any energy conservation measure implemented  
25                  using amounts from the Bank.

1           “(F) NO RESCISSION OR REPROGRAM-  
2           MING.—A Federal agency shall not rescind or  
3           reprogram loan amounts made available from  
4           the Bank except as permitted under guidelines  
5           issued under subparagraph (G).

6           “(G) GUIDELINES.—The Secretary shall  
7           issue guidelines for implementation of the loan  
8           program under this paragraph, including selec-  
9           tion criteria, maximum loan amounts, and loan  
10          repayment terms.

11       “(d) SELECTION CRITERIA.—

12           “(1) IN GENERAL.—The Secretary shall estab-  
13          lish criteria for the selection of projects to be award-  
14          ed loans in accordance with paragraph (2).

15           “(2) SELECTION CRITERIA.—

16           “(A) IN GENERAL.—The Secretary may  
17          make loans from the Bank only for a project  
18          that—

19                   “(i) is technically feasible;

20                   “(ii) is determined to be cost-effective  
21                  using life cycle cost methods established by  
22                  the Secretary;

23                   “(iii) includes a measurement and  
24                  management component, based on the

1 measurement and verification protocols of  
2 the Department of Energy, to—

3 “(I) commission energy savings  
4 for new and existing Federal facilities;

5 “(II) monitor and improve energy  
6 efficiency management at existing  
7 Federal facilities; and

8 “(III) verify the energy savings  
9 under an energy savings performance  
10 contract under title VIII; and

11 “(iv)(I) in the case of renewable en-  
12 ergy or alternative energy project, has a  
13 simple payback period of not more than 15  
14 years; and

15 “(II) in the case of any other project,  
16 has a simple payback period of not more  
17 than 10 years.

18 “(B) PRIORITY.—In selecting projects, the  
19 Secretary shall give priority to projects that—

20 “(i) are a component of a comprehen-  
21 sive energy management project for a Fed-  
22 eral facility; and

23 “(ii) are designed to significantly re-  
24 duce the energy use of the Federal facility.

25 “(e) REPORTS AND AUDITS.—

1           “(1) REPORTS TO THE SECRETARY.—Not later  
2           than 1 year after the completion of installation of a  
3           project that has a cost of more than \$1,000,000,  
4           and annually thereafter, a Federal agency shall sub-  
5           mit to the Secretary a report that—

6                   “(A) states whether the project meets or  
7                   fails to meet the energy savings projections for  
8                   the project; and

9                   “(B) for each project that fails to meet the  
10                  energy savings projections, states the reasons  
11                  for the failure and describes proposed remedies.

12           “(2) AUDITS.—The Secretary may audit, or re-  
13           quire a Federal agency that receives a loan from the  
14           Bank to audit, any project financed with amounts  
15           from the Bank to assess the performance of the  
16           project.

17           “(3) REPORTS TO CONGRESS.—At the end of  
18           each fiscal year, the Secretary shall submit to Con-  
19           gress a report on the operations of the Bank, includ-  
20           ing a statement of—

21                   “(A) the total receipts by the Bank;

22                   “(B) the total amount of loans from the  
23           Bank to each Federal agency; and

1           “(C) the estimated cost and energy savings  
2           resulting from projects funded with loans from  
3           the Bank.

4           “(f) AUTHORIZATION OF APPROPRIATIONS.—There  
5           are authorized to be appropriated to such sums as are nec-  
6           essary to carry out this section.”

7   **SEC. 919. ENERGY AND WATER SAVING MEASURES IN CON-**  
8           **GRESSIONAL BUILDINGS.**

9           (a) IN GENERAL.—Part 3 of title V of the National  
10          Energy Conservation Policy Act is amended by adding at  
11          the end:

12   **“SEC. 554. ENERGY AND WATER SAVINGS MEASURES IN**  
13           **CONGRESSIONAL BUILDINGS.**

14          “(a) IN GENERAL.—The Architect of the Capitol—

15               “(1) shall develop, update, and implement a  
16               cost-effective energy conservation and management  
17               plan (referred to in this section as the “plan”) for  
18               all facilities administered by the Congress (referred  
19               to in this section as ‘congressional buildings’) to  
20               meet the energy performance requirements for Fed-  
21               eral buildings established under section 543(a)(1).

22               “(2) shall submit the plan to Congress, not  
23               later than 180 days after the date of enactment of  
24               this section.

1       “(b) PLAN REQUIREMENTS.—The plan shall  
2 include—

3               “(1) a description of the life-cycle cost analysis  
4 used to determine the cost-effectiveness of proposed  
5 energy efficiency projects;

6               “(2) a schedule of energy surveys to ensure  
7 complete surveys of all congressional buildings every  
8 five years to determine the cost and payback period  
9 of energy and water conservation measures;

10              “(3) a strategy for installation of life cycle cost  
11 effective energy and water conservation measures;

12              “(4) the results of a study of the costs and ben-  
13 efits of installation of submetering in congressional  
14 buildings; and

15              “(5) information packages and ‘how-to’ guides  
16 for each Member and employing authority of Con-  
17 gress that detail simple, cost-effective methods to  
18 save energy and taxpayer dollars in the workplace.

19       “(c) CONTRACTING AUTHORITY.—The Architect—

20              “(1) may contract with nongovernmental enti-  
21 ties and use private sector capital to finance energy  
22 conservation projects and meet energy performance  
23 requirements; and

24              “(2) may use innovative contracting methods  
25 that will attract private sector funding for the instal-



1       lation of energy efficient and renewable energy tech-  
2       nology, such as energy savings performance con-  
3       tracts described in title VIII.

4       “(d) CAPITOL VISITOR CENTER.—The Architect—

5               “(1) shall ensure that state-of-the-art energy ef-  
6       ficiency and renewable energy technologies are used  
7       in the construction and design of the Visitor Center;  
8       and

9               “(2) shall include in the Visitor Center an ex-  
10      hibit on the energy efficiency and renewable energy  
11      measures used in congressional buildings.

12      “(e) ANNUAL REPORT.—The Architect shall submit  
13      to Congress annually a report on congressional energy  
14      management and conservation programs required under  
15      this section that describes in detail—

16              “(1) energy expenditures and savings estimates  
17      for each facility;

18              “(2) energy management and conservation  
19      projects; and

20              “(3) future priorities to ensure compliance with  
21      this section.”.

22      (b) REPEAL.—Section 310 of the Legislative Branch  
23      Appropriations Act, 1999 (40 U.S.C. 166i), is repealed.

1     **Subtitle C—Industrial Efficiency**  
2             **and Consumer Products**

3     **SEC. 921. VOLUNTARY COMMITMENTS TO REDUCE INDUS-**  
4             **TRIAL ENERGY INTENSITY.**

5             (a) VOLUNTARY AGREEMENTS.—The Secretary of  
6     Energy shall enter into voluntary agreements with one or  
7     more persons in industrial sectors that consume signifi-  
8     cant amounts of primary energy per unit of physical out-  
9     put to reduce the energy intensity of their production ac-  
10    tivities.

11            (b) GOAL.—Voluntary agreements under this section  
12    shall have a goal of reducing energy intensity by not less  
13    than 2.5 percent each year from 2002 through 2012.

14            (c) RECOGNITION.—The Secretary of Energy, in co-  
15    operation with the Administrator of the Environmental  
16    Protection Agency and other appropriate federal agencies,  
17    shall develop mechanisms to recognize and publicize the  
18    achievements of participants in voluntary agreements  
19    under this section.

20            (d) DEFINITION.—In this section, the term “energy  
21    intensity” means the primary energy consumed per unit  
22    of physical output in an industrial process.

23            (e) TECHNICAL ASSISTANCE.—An entity that enters  
24    into an agreement under this section and continues to  
25    make a good faith effort to achieve the energy efficiency

1 goals specified in the agreement shall be eligible to receive  
 2 from the Secretary a grant or technical assistance as ap-  
 3 propriate to assist in the achievement of those goals.

4 (f) REPORT.—Not later than June 30, 2008 and  
 5 June 30, 2012, the Secretary shall submit to Congress a  
 6 report that evaluates the success of the voluntary agree-  
 7 ments, with independent verification of a sample of the  
 8 energy savings estimates provided by participating firms.

9 **SEC. 922. AUTHORITY TO SET STANDARDS FOR COMMER-**  
 10 **CIAL PRODUCTS.**

11 Part B of title III of the Energy Policy and Conserva-  
 12 tion Act (42 U.S.C. 6291 et seq.) is amended as follows:

13 (1) In the heading for such part, by inserting  
 14 “AND COMMERCIAL” after “CONSUMER”.

15 (2) In section 321(2), by inserting “or commer-  
 16 cial” after “consumer”.

17 (3) In paragraphs (4), (5), and (15) of section  
 18 321, by striking “consumer” each place it appears  
 19 and inserting “covered”.

20 (4) In section 322(a), by inserting “or commer-  
 21 cial” after “consumer” the first place it appears in  
 22 the material preceding paragraph (1).

23 (5) In section 322(b), by inserting “or commer-  
 24 cial” after “consumer” each place it appears.

1           (6) In section 322 (b)(1)(B) and (b)(2)(A), by  
2     inserting “or per-business in the case of a commer-  
3     cial product” after “per-household” each place it ap-  
4     pears.

5           (7) In section 322 (b)(2)(A), by inserting “or  
6     businesses in the case of commercial products” after  
7     “households” each place it appears.

8           (8) In section 322 (B)(2)(C)—

9                 (A) by striking “term” and inserting  
10                “terms”; and

11               (B) by inserting “and ‘businesses’” after  
12                “household”.

13           (9) In section 323 (b)(1) (B) by inserting “or  
14     commercial” after “consumer”.

15 **SEC. 923. ADDITIONAL DEFINITIONS.**

16     Section 321 of the Energy Policy and Conservation  
17     Act (42 U.S.C. 6291) is amended by adding at the end  
18     the following:

19               “(32) The term ‘battery charger’ means a de-  
20     vice that charges batteries for consumer products.

21               “(33) The term ‘commercial refrigerator, freez-  
22     er and refrigerator-freezer’ means a refrigerator,  
23     freezer or refrigerator-freezer that—

24                     “(A) is not a consumer product regulated  
25                     under this Act; and

1           “(B) incorporates most components in-  
2           volved in the vapor-compression cycle and the  
3           refrigerated compartment in a single package.

4           “(34) The term ‘external power supply’ means  
5           an external power supply circuit that is used to con-  
6           vert household electric current into either DC cur-  
7           rent or lower-voltage AC current to operate a con-  
8           sumer product.

9           “(35) The term ‘illuminated exit sign’ means a  
10          sign that—

11           “(A) is designed to be permanently fixed in  
12          place to identify an exit; and

13           “(B) consists of—

14           “(i) an electrically powered integral  
15          light source that illuminates the legend  
16          ‘EXIT’ and any directional indicators; and

17           “(ii) provides contrast between the  
18          legend, any directional indicators, and the  
19          background.

20          “(36)(A) Except as provided in subsection (B),  
21          the term ‘low-voltage dry-type transformer’ means a  
22          transformer that—

23           “(i) has an input voltage of 600 volts or  
24          less;

25           “(ii) is air-cooled;

1 “(iii) does not use oil as a coolant; and

2 “(iv) is rated for operation at a frequency  
3 of 60 Hertz.

4 “(B) The term ‘low-voltage dry-type trans-  
5 former’ does not include—

6 “(i) transformers with multiple voltage  
7 taps, with the highest voltage tap equaling at  
8 least 20 percent more than the lowest voltage  
9 tap;

10 “(ii) transformers that are designed to be  
11 used in a special purpose application, such as  
12 transformers commonly known as drive trans-  
13 formers, rectifier transformers,  
14 autotransformers, Uninterruptible Power Sys-  
15 tem transformers, impedance transformers, har-  
16 monic transformers, regulating transformers,  
17 sealed and nonventilating transformers, ma-  
18 chine tool transformers, welding transformers,  
19 grounding transformers, or testing trans-  
20 formers; or

21 “(iii) any transformer not listed in clause  
22 (ii) that is excluded by the Secretary by rule be-  
23 cause the transformer is designed for a special  
24 application and the application of standards to

1           the transformer would not result in significant  
2           energy savings.

3           “(37) The term “standby mode” means the  
4           lowest amount of electric power used by a household  
5           appliance when not performing its active functions,  
6           as defined on an individual product basis by the Sec-  
7           retary.

8           “(38) The term ‘torchiere’ means a portable  
9           electric lamp with a reflector bowl that directs light  
10          upward so as to give indirect illumination.

11          “(39) The term ‘transformer’ means a device  
12          consisting of 2 or more coils of insulated wire that  
13          transfers alternating current by electromagnetic in-  
14          duction from one coil to another to change the origi-  
15          nal voltage or current value.

16          “(40) The term ‘unit heater’ means a self-con-  
17          tained fan-type heater designed to be installed with-  
18          in the heated space, except that such term does not  
19          include a warm air furnace.

20   **SEC. 924. ADDITIONAL TEST PROCEDURES.**

21          (a) EXIT SIGNS.—Section 323(b) of the Energy Pol-  
22          icy and Conservation Act (42 U.S.C. 6293) is amended  
23          by adding at the end the following:

24                 “(9) Test procedures for illuminated exit signs  
25                 shall be based on the test method used under the

1       Energy Star program of the Environmental Protec-  
2       tion Agency for illuminated exit signs, as in effect on  
3       the date of enactment of this paragraph.

4               “(10) Test procedures for low voltage dry-type  
5       distribution transformers shall be based on the  
6       ‘Standard Test Method for Measuring the Energy  
7       Consumption of Distribution Transformers’ pre-  
8       scribed by the National Electrical Manufacturers As-  
9       sociation (NEMA TP 2–1998). The Secretary may  
10      review and revise this test procedure based on future  
11      revisions to such standard test method.

12      (b) ADDITIONAL CONSUMER AND COMMERCIAL  
13   PRODUCTS.—Section 323 of the Energy Policy and Con-  
14   servation Act (42 U.S.C. 6293) is further amended by  
15   adding at the end the following:

16           “(f) ADDITIONAL CONSUMER AND COMMERCIAL  
17   PRODUCTS.—The Secretary shall within 24 months after  
18   the date of enactment of this subsection prescribe testing  
19   requirements for suspended ceiling fans, refrigerated bot-  
20   tled or canned beverage vending machines, commercial  
21   unit heaters, and commercial refrigerators, freezers and  
22   refrigerator-freezers. Such testing requirements shall be  
23   based on existing test procedures used in industry to the  
24   extent practical and reasonable. In the case of suspended  
25   ceiling fans, such test procedures shall include efficiency



1 at both maximum output and at an output no more than  
2 50 percent of the maximum output.”.

3 **SEC. 925. ENERGY LABELING.**

4 (a) RULEMAKING ON EFFECTIVENESS OF CONSUMER  
5 PRODUCT LABELING.—Paragraph (2) of section 324(a) of  
6 the Energy Policy and Conservation Act (42 U.S.C.  
7 6294(a)(2)) is amended by adding at the end the fol-  
8 lowing:

9 “(F) Not later than three months after the  
10 date of enactment of this subparagraph, the  
11 Commission shall initiate a rulemaking to con-  
12 sider the effectiveness of the current consumer  
13 products labeling program in assisting con-  
14 sumers in making purchasing decisions and im-  
15 proving energy efficiency and to consider  
16 changes to the labeling rules that would im-  
17 prove the effectiveness of consumer product la-  
18 bels. Such rulemaking shall be completed within  
19 15 months of the date of enactment of this sub-  
20 paragraph.”.

21 (b) RULEMAKING ON LABELING FOR ADDITIONAL  
22 PRODUCTS.—Section 324(a) of the Energy Policy and  
23 Conservation Act (42 U.S.C. 6294(a)) is further amended  
24 by adding at the end the following:

1           “(5) The Secretary shall within 6 months after  
2           the date on which energy conservation standards are  
3           prescribed by the Secretary for covered products re-  
4           ferred to in subsections (u) and (v) of section 325,  
5           and within 18 months of enactment of this para-  
6           graph for products referred to in subsections (w)  
7           through (y) of section 325, prescribe, by rule, label-  
8           ing requirements for such products. Labeling re-  
9           quirements adopted under this paragraph shall take  
10          effect on the same date as the standards set pursu-  
11          ant to sections 325(v) through (y).

12 **SEC. 926. ENERGY STAR PROGRAM.**

13          The Energy Policy and Conservation Act (42 U.S.C.  
14 6201 and following) is amended by inserting after section  
15 324 the following:

16                               “ENERGY STAR PROGRAM

17          “SEC. 324A. (a) IN GENERAL.—There is established  
18 at the Department of Energy and the Environmental Pro-  
19 tection Agency a program to identify and promote energy-  
20 efficient products and buildings in order to reduce energy  
21 consumption, improve energy security, and reduce pollu-  
22 tion through labeling of products and buildings that meet  
23 the highest energy efficiency standards. Responsibilities  
24 under the program shall be divided between the Depart-  
25 ment of Energy and the Environmental Protection Agency

1 consistent with the terms of agreements between the two  
2 agencies. The Administrator and the Secretary shall—

3 “(1) promote Energy Star compliant tech-  
4 nologies as the preferred technologies in the market-  
5 place for achieving energy efficiency and to reduce  
6 pollution;

7 “(2) work to enhance public awareness of the  
8 Energy Star label;

9 “(3) preserve the integrity of the Energy Star  
10 label; and

11 “(4) solicit the comments of interested parties  
12 in establishing a new Energy Star product category  
13 or in revising a product category, and upon adoption  
14 of a new or revised product category provide an ex-  
15 planation of the decision that responds to significant  
16 public comments.”.

17 **SEC. 927. ENERGY CONSERVATION STANDARDS FOR CEN-**  
18 **TRAL AIR CONDITIONERS AND HEAT PUMPS.**

19 Section 325(d) of the Energy Policy and Conserva-  
20 tion Act (42 U.S.C. 6295(d)) is amended to read as fol-  
21 lows:

22 “(1) Except as provided in paragraph (3), the  
23 seasonal energy efficiency ratio of central air condi-  
24 tioners and central air conditioning heat pumps

1       manufactured on or after January 23, 2006 shall be  
2       no less than 13.0.

3           “(2) Except as provided in paragraph (4), the  
4       heating seasonal performance factor of central air  
5       conditioning heat pumps manufactured on or after  
6       January 23, 2006 shall be no less than 7.7.

7           “(3) The seasonal energy efficiency ratio of cen-  
8       tral air conditioners or central air conditioning heat  
9       pumps manufactured on or after January 23, 2006  
10      shall be no less than 12.0 for products that—

11           “(A) have a rated cooling capacity equal to  
12      or less than 30,000 Btu per hour;

13           “(B) have an outdoor or indoor unit hav-  
14      ing at least two overall exterior dimensions or  
15      an overall displacement that—

16           “(i) is substantially smaller than those  
17      of other units that are currently installed  
18      in site-built single family homes, and of a  
19      similar cooling or heating capacity, and

20           “(ii) if increased would result in a sig-  
21      nificant increase in the cost of installation  
22      or would result in a significant loss in the  
23      utility of the product to the consumer; and

24           “(C) were available for purchase in the  
25      United States as of December 1, 2000.

1           “(4) The heating seasonal performance factor  
2           of central air conditioning heat pumps manufactured  
3           on or after January 25, 2006 shall not be less 7.4  
4           for products that meet the criteria in paragraph (3).

5           “(5) The Secretary may postpone the require-  
6           ments of paragraphs (3) and (4) for specific product  
7           types until a date no later than January 23, 2010,  
8           if he determines that compliance is either—

9                       “(A) not technologically feasible, or

10                      “(B) not economically justifiable.

11           “(6) The Secretary shall publish a final rule not  
12           later than January 1, 2006 to determine whether  
13           the standards in effect for central air conditioners  
14           and central air conditioning heat pumps should be  
15           amended. Such rule shall provide that any amend-  
16           ment shall apply to products manufactured on or  
17           after January 1, 2011.”.

18 **SEC. 928. ENERGY CONSERVATION STANDARDS FOR ADDI-**  
19 **TIONAL CONSUMER AND COMMERCIAL PROD-**  
20 **UCTS.**

21           Section 325 of the Energy Policy and Conservation  
22 Act (42 U.S.C. 6295) is amended by adding at the end  
23 the following:

24           “(u) STANDBY MODE ELECTRIC ENERGY CONSUMP-  
25 TION.—

1 “(1) INITIAL RULEMAKING.—

2 “(A) The Secretary shall, within 18  
3 months after the date of enactment of this sub-  
4 section, prescribe by notice and comment, defi-  
5 nitions of standby mode and test procedures for  
6 the standby mode power use of battery chargers  
7 and external power supplies. In establishing  
8 these test procedures, the Secretary shall con-  
9 sider, among other factors, existing test proce-  
10 dures used for measuring energy consumption  
11 in standby mode and assess the current and  
12 projected future market for battery chargers  
13 and external power supplies. This assessment  
14 shall include estimates of the significance of po-  
15 tential energy savings from technical improve-  
16 ments to these products and suggested product  
17 classes for standards. Prior to the end of this  
18 time period, the Secretary shall hold a scoping  
19 workshop to discuss and receive comments on  
20 plans for developing energy conservation stand-  
21 ards for standby mode energy use for these  
22 products.

23 “(B) The Secretary shall, within 3 years  
24 after the date of enactment of this subsection,  
25 issue a final rule that determines whether en-

1           ergy conservation standards shall be promul-  
2           gated for battery chargers and external power  
3           supplies or classes thereof. For each product  
4           class, any such standards shall be set at the  
5           lowest level of standby energy use that—

6                   (i) meets the criteria of subsections  
7                   (o), (p), (q), (r), (s) and (t); and

8                   (ii) will result in significant overall  
9                   annual energy savings, considering both  
10                  standby mode and other operating modes.

11           “(2) DESIGNATION OF ADDITIONAL COVERED  
12   PRODUCTS.—

13                   “(A) Not later than 180 days after the  
14                  date of enactment of this subsection, the Sec-  
15                  retary shall publish for public comment and  
16                  public hearing a notice to determine whether  
17                  any noncovered products should be designated  
18                  as covered products for the purpose of insti-  
19                  tuting a rulemaking under this section to deter-  
20                  mine whether an energy conservation standard  
21                  restricting standby mode energy consumption,  
22                  should be promulgated; providing that any re-  
23                  striction on standby mode energy consumption  
24                  shall be limited to major sources of such con-  
25                  sumption.

1           “(B) In making the determinations pursu-  
2           ant to subparagraph (A) of whether to des-  
3           ignate new covered products and institute  
4           rulemakings, the Secretary shall, among other  
5           relevant factors and in addition to the criteria  
6           in section 322(b), consider—

7                   “(i) standby mode power consumption  
8                   compared to overall product energy con-  
9                   sumption; and

10                  “(ii) the priority and energy savings  
11                  potential of standards which may be pro-  
12                  mulgated under this subsection compared  
13                  to other required rulemakings under this  
14                  section and the available resources of the  
15                  Department to conduct such rulemakings.

16           “(C) Not later than one year after the date  
17           of enactment of this subsection, the Secretary  
18           shall issue a determination of any new covered  
19           products for which he intends to institute  
20           rulemakings on standby mode pursuant to this  
21           section and he shall state the dates by which he  
22           intends to initiate those rulemakings.

23           “(3) REVIEW OF STANDBY ENERGY USE IN  
24           COVERED PRODUCTS.—In determining pursuant to  
25           section 323 whether test procedures and energy con-



1        servation standards pursuant to section 325 should  
2        be revised, the Secretary shall consider for covered  
3        products which are major sources of standby mode  
4        energy consumption whether to incorporate standby  
5        mode into such test procedures and energy conserva-  
6        tion standards, taking into account, among other  
7        relevant factors, the criteria for non-covered prod-  
8        ucts in subparagraph (B) of this subsection.

9            “(4) RULEMAKING FOR STANDBY MODE.—

10           “(A) Any rulemaking instituted under this  
11           subsection or for covered products under this  
12           section which restricts standby mode power con-  
13           sumption shall be subject to the criteria and  
14           procedures for issuing energy conservation  
15           standards set forth in section 325 and the cri-  
16           teria set forth in paragraph 2(B) of this sub-  
17           section.

18           “(B) No standard can be proposed for new  
19           covered products or covered products in a  
20           standby mode unless the Secretary has promul-  
21           gated applicable test procedures for each prod-  
22           uct pursuant to section 323.

23           “(C) The provisions of section 327 shall  
24           apply to new covered products which are subject

1 to the rulemakings for standby mode after a  
2 final rule has been issued.

3 “(5) EFFECTIVE DATE.—Any standard promul-  
4 gated under this subsection shall be applicable to  
5 products manufactured or imported three years after  
6 the date of promulgation.

7 “(6) VOLUNTARY PROGRAMS TO REDUCE  
8 STANDBY MODE ENERGY USE.—The Secretary and  
9 the Administrator shall collaborate and develop pro-  
10 grams, including programs pursuant to section 324A  
11 and other voluntary industry agreements or codes of  
12 conduct, which are designed to reduce standby mode  
13 energy use.

14 “(v) SUSPENDED CEILING FANS, VENDING MA-  
15 CHINES, UNIT HEATERS, AND COMMERCIAL REFRIG-  
16 ERATORS, FREEZERS AND REFRIGERATOR-FREEZERS.—  
17 The Secretary shall within 24 months after the date on  
18 which testing requirements are prescribed by the Sec-  
19 retary pursuant to section 323(f), prescribe, by rule, en-  
20 ergy conservation standards for suspended ceiling fans, re-  
21 frigerated bottled or canned beverage vending machines,  
22 unit heaters, and commercial refrigerators, freezers and  
23 refrigerator-freezers. In establishing standards under this  
24 subsection, the Secretary shall use the criteria and proce-  
25 dures contained in subsections (l) and (m). Any standard

1 prescribed under this subsection shall apply to products  
2 manufactured 3 years after the date of publication of a  
3 final rule establishing such standard.

4 “(w) ILLUMINATED EXIT SIGNS.—Illuminated exit  
5 signs manufactured on or after January 1, 2005 shall  
6 meet the Energy Star Program performance requirements  
7 for illuminated exit signs prescribed by the Environmental  
8 Protection Agency as in effect on the date of enactment  
9 of this subsection.

10 “(x) TORCHIERES.—Torchieres manufactured on or  
11 after January 1, 2005—

12 “(1) shall consume not more than 190 watts of  
13 power; and

14 “(2) shall not be capable of operating with  
15 lamps that total more than 190 watts.

16 “(y) LOW VOLTAGE DRY-TYPE TRANSFORMERS.—  
17 The efficiency of low voltage dry-type transformers manu-  
18 factured on or after January 1, 2005 shall be the Class  
19 I Efficiency Levels for low voltage dry-type transformers  
20 specified in Table 4–2 of the ‘Guide for Determining En-  
21 ergy Efficiency for Distribution Transformers’ published  
22 by the National Electrical Manufacturers Association  
23 (NEMA TP–1–1996).”.

1 **SEC. 929. CONSUMER EDUCATION ON ENERGY EFFICIENCY**  
2 **BENEFITS OF AIR CONDITIONING, HEATING,**  
3 **AND VENTILATION MAINTENANCE.**

4 Section 337 of the Energy Policy and Conservation  
5 Act (42 U.S.C. 6307) is amended by adding at the end  
6 the following:

7 “(c) HVAC MAINTENANCE.—(1) For the purpose of  
8 ensuring that installed air conditioning and heating sys-  
9 tems operate at their maximum rated efficiency levels, the  
10 Secretary shall, within 180 days of the date of enactment  
11 of this subsection, carry out a program to educate home-  
12 owners and small business owners concerning the energy  
13 savings resulting from properly conducted maintenance of  
14 air conditioning, heating, and ventilating systems.

15 “(2) The Secretary may carry out the program in co-  
16 operation with industry trade associations, industry mem-  
17 bers, and energy efficiency organizations.”.

18 **Subtitle D—Housing Efficiency**

19 **SEC. 931. CAPACITY BUILDING FOR ENERGY EFFICIENT, AF-**  
20 **FORDABLE HOUSING.**

21 Section 4(b) of the HUD Demonstration Act of 1993  
22 (42 U.S.C. 9816 note) is amended—

23 (1) in paragraph (1), by inserting before the  
24 semicolon at the end the following: “, including ca-  
25 pabilities regarding the provision of energy efficient,

1 affordable housing and residential energy conserva-  
2 tion measures”; and

3 (2) in paragraph (2), by inserting before the  
4 semicolon the following: “, including such activities  
5 relating to the provision of energy efficient, afford-  
6 able housing and residential energy conservation  
7 measures that benefit low-income families”.

8 **SEC. 932. INCREASE OF CDBG PUBLIC SERVICES CAP FOR**  
9 **ENERGY CONSERVATION AND EFFICIENCY**  
10 **ACTIVITIES.**

11 Section 105(a)(8) of the Housing and Community  
12 Development Act of 1974 (42 U.S.C. 5305(a)(8)) is  
13 amended—

14 (1) by inserting “or efficiency” after “energy  
15 conservation”;

16 (2) by striking “, and except that” and insert-  
17 ing “; except that”; and

18 (3) by inserting before the period at the end the  
19 following: “; and except that each percentage limita-  
20 tion under this paragraph on the amount of assist-  
21 ance provided under this title that may be used for  
22 the provision of public services is hereby increased  
23 by 10 percent, but such percentage increase may be  
24 used only for the provision of public services con-  
25 cerning energy conservation or efficiency”.

1 **SEC. 933. FHA MORTGAGE INSURANCE INCENTIVES FOR**  
2 **ENERGY EFFICIENT HOUSING.**

3 (a) SINGLE FAMILY HOUSING MORTGAGE INSUR-  
4 ANCE.—Section 203(b)(2) of the National Housing Act  
5 (12 U.S.C. 1709(b)(2)) is amended, in the first undesig-  
6 nated paragraph beginning after subparagraph (B)(iii)  
7 (relating to solar energy systems)—

8 (1) by inserting “or paragraph (10)”; and

9 (2) by striking “20 percent” and inserting “30  
10 percent”.

11 (b) MULTIFAMILY HOUSING MORTGAGE INSUR-  
12 ANCE.—Section 207(c) of the National Housing Act (12  
13 U.S.C. 1713(c)) is amended, in the second undesignated  
14 paragraph beginning after paragraph (3) (relating to solar  
15 energy systems and residential energy conservation meas-  
16 ures), by striking “20 percent” and inserting “30 per-  
17 cent”.

18 (c) COOPERATIVE HOUSING MORTGAGE INSUR-  
19 ANCE.—Section 213(p) of the National Housing Act (12  
20 U.S.C. 1715e(p)) is amended by striking “20 per centum”  
21 and inserting “30 percent”.

22 (d) REHABILITATION AND NEIGHBORHOOD CON-  
23 SERVATION HOUSING MORTGAGE INSURANCE.—Section  
24 220(d)(3)(B)(iii) of the National Housing Act (12 U.S.C.  
25 1715k(d)(3)(B)(iii)) is amended by striking “20 per cen-  
26 tum” and inserting “30 percent”.

1       (e) LOW-INCOME MULTIFAMILY HOUSING MORT-  
2 GAGE INSURANCE.—Section 221(k) of the National Hous-  
3 ing Act (12 U.S.C. 1715l(k)) is amended by striking “20  
4 per centum” and inserting “30 percent”.

5       (f) ELDERLY HOUSING MORTGAGE INSURANCE.—  
6 The proviso at the end of section 213(c)(2) of the National  
7 Housing Act (12 U.S.C. 1715v(c)(2)) is amended by strik-  
8 ing “20 per centum” and inserting “30 percent”.

9       (g) CONDOMINIUM HOUSING MORTGAGE INSUR-  
10 ANCE.—Section 234(j) of the National Housing Act (12  
11 U.S.C. 1715y(j)) is amended by striking “20 per centum”  
12 and inserting “30 percent”.

13 **SEC. 934. PUBLIC HOUSING CAPITAL FUND.**

14       Section 9(d)(1) of the United States Housing Act of  
15 1937 (42 U.S.C. 1437g(d)(1)) is amended—

16           (1) in subparagraph (I), by striking “and” at  
17 the end;

18           (2) in subparagraph (K), by striking the period  
19 at the end and inserting “; and”; and

20           (3) by adding at the end the following new sub-  
21 paragraph:

22                   “(L) improvement of energy and water-use  
23 efficiency by installing fixtures and fittings that  
24 conform to the American Society of Mechanical  
25 Engineers/American National Standards Insti-

1           tute       standards       A112.19.2–1998       and  
2           A112.18.1–2000, or any revision thereto, appli-  
3           cable at the time of installation, and by increas-  
4           ing energy efficiency and water conservation by  
5           such other means as the Secretary determines  
6           are appropriate.”.

7   **SEC. 935. GRANTS FOR ENERGY-CONSERVING IMPROVE-**  
8                   **MENTS FOR ASSISTED HOUSING.**

9           Section 251(b)(1) of the National Energy Conserva-  
10   tion Policy Act (42 U.S.C. 8231(1)) is amended—

11           (1) by striking “financed with loans” and in-  
12           serting “assisted”;

13           (2) by inserting after “1959,” the following:  
14           “which are eligible multifamily housing projects (as  
15           such term is defined in section 512 of the Multi-  
16           family Assisted Housing Reform and Affordability  
17           Act of 1997 (42 U.S.C. 1437f note) and are subject  
18           to a mortgage restructuring and rental assistance  
19           sufficiency plans under such Act,”; and

20           (3) by inserting after the period at the end of  
21           the first sentence the following new sentence: “Such  
22           improvements may also include the installation of  
23           energy and water conserving fixtures and fittings  
24           that conform to the American Society of Mechanical  
25           Engineers/American National Standards Institute



1 standards A112.19.2–1998 and A112.18.1–2000, or  
2 any revision thereto, applicable at the time of instal-  
3 lation.”.

4 **SEC. 936. NORTH AMERICAN DEVELOPMENT BANK.**

5 Part 2 of subtitle D of title V of the North American  
6 Free Trade Agreement Implementation Act (22 U.S.C.  
7 290m–290m–3) is amended by adding at the end the fol-  
8 lowing:

9 **“SEC. 545. SUPPORT FOR CERTAIN ENERGY POLICIES.**

10 “Consistent with the focus of the Bank’s Charter on  
11 environmental infrastructure projects, the Board members  
12 representing the United States should use their voice and  
13 vote to encourage the Bank to finance projects related to  
14 clean and efficient energy, including energy conservation,  
15 that prevent, control, or reduce environmental pollutants  
16 or contaminants.”.

17 **DIVISION D—INTEGRATION OF**  
18 **ENERGY POLICY AND**  
19 **CLIMATE CHANGE POLICY**  
20 **TITLE X—CLIMATE CHANGE**  
21 **POLICY FORMULATION**

22 **Subtitle A—Global Warming**

23 **SEC. 1001. SENSE OF CONGRESS ON GLOBAL WARMING.**

24 (a) FINDINGS.—The Congress makes the following  
25 findings:

1           (1) Evidence continues to build that increases  
2           in atmospheric concentrations of man-made green-  
3           house gases are contributing to global climate  
4           change.

5           (2) The Intergovernmental Panel on Climate  
6           Change (IPCC) has concluded that “there is new  
7           and stronger evidence that most of the warming ob-  
8           served over the last 50 years is attributable to  
9           human activities” and that the Earth’s average tem-  
10          perature can be expected to rise between 2.5 and  
11          10.4 degrees Fahrenheit in this century.

12          (3) The National Academy of Sciences con-  
13          firmed the findings of the IPCC, stating that “the  
14          IPCC’s conclusion that most of the observed warm-  
15          ing of the last 50 years is likely to have been due  
16          to the increase of greenhouse gas concentrations ac-  
17          curately reflects the current thinking of the scientific  
18          community on this issue” and that “there is general  
19          agreement that the observed warming is real and  
20          particularly strong within the past twenty years”.

21          (4) The IPCC has stated that in the last 40  
22          years, the global average sea level has risen, ocean  
23          heat content has increased, and snow cover and ice  
24          extent have decreased, which threatens to inundate

1 low-lying island nations and coastal regions through-  
2 out the world.

3 (5) The Environmental Protection Agency has  
4 found that global warming may harm the United  
5 States by altering crop yields, accelerating sea level  
6 rise, and increasing the spread of tropical infectious  
7 diseases.

8 (6) In 1992, the United States ratified the  
9 United Nations Framework Convention of Climate  
10 Change, done at New York on May 9, 1992, the ul-  
11 timate objective of which is the “stabilization of  
12 greenhouse gas concentrations in the atmosphere at  
13 a level that would prevent dangerous anthropogenic  
14 interference with the climate system”, and which  
15 stated in part “the Parties to the Convention are to  
16 implement policies with the aim of returning . . . to  
17 their 1990 levels anthropogenic emissions of carbon  
18 dioxide and other greenhouse gases.”

19 (7) There is a shared international responsi-  
20 bility to address this problem, as industrial nations  
21 are the largest historic and current emitters of  
22 greenhouse gases and developing nations’ emissions  
23 will significantly increase in the future.

24 (8) The United Nations Framework Convention  
25 on Climate Change further states that “developed

1 country Parties should take the lead in combating  
2 climate change and the adverse effects thereof”, as  
3 these nations are the largest historic and current  
4 emitters of greenhouse gases.

5 (9) Senate Resolution 98 of July 1997, which  
6 expressed that developing nations, especially the  
7 largest emitters, must also be included in any fu-  
8 ture, binding climate change treaty and such a trea-  
9 ty must not result in serious harm to the United  
10 States economy, should not cause the United States  
11 to abandon its shared responsibility to help find a  
12 solution to the global climate change dilemma.

13 (10) American businesses need to know how  
14 governments worldwide will respond to the threat of  
15 global warming.

16 (11) The United States has benefitted and will  
17 continue to benefit from investments in the research,  
18 development and deployment of a range of clean en-  
19 ergy and efficiency technologies that can mitigate  
20 global warming and that can make the United  
21 States economy more productive, bolster energy se-  
22 curity, create jobs, and protect the environment.

23 (b) SENSE OF CONGRESS.—It is the sense of the  
24 United States Congress that the United States should  
25 demonstrate international leadership and responsibility in

1 mitigating the health, environmental, and economic  
2 threats posed by global warming by—

3           (1) taking responsible action to ensure signifi-  
4 cant and meaningful reductions in emissions of  
5 greenhouse gases from all sectors;

6           (2) creating flexible international and domestic  
7 mechanisms, including joint implementation, tech-  
8 nology deployment, emissions trading and carbon se-  
9 questration projects that will reduce, avoid, and se-  
10 quester greenhouse gas emissions; and

11           (3) participating in international negotiations,  
12 including putting forth a proposal at the next meet-  
13 ing of the Conference of the Parties, with the objec-  
14 tive of securing United States' participation in a re-  
15 vised Kyoto Protocol or other future binding climate  
16 change agreements in a manner that is consistent  
17 with the environmental objectives of the Framework  
18 Convention on Climate Change, that protects the  
19 economic interests of the United States, and recog-  
20 nizes the shared international responsibility for ad-  
21 dressing climate change, including developing coun-  
22 try participation.

1           **Subtitle B—Climate Change**  
2                           **Strategy**

3   **SEC. 1011. SHORT TITLE.**

4           This title may be cited as the “Climate Change Strat-  
5   egy and Technology Innovation Act of 2002”.

6   **SEC. 1012. FINDINGS.**

7           Congress finds that—

8                   (1) evidence continues to build that increases in  
9           atmospheric concentrations of greenhouse gases are  
10          contributing to global climate change;

11                   (2) in 1992, the Senate ratified the United Na-  
12          tions Framework Convention on Climate Change,  
13          done at New York on May 9, 1992, the ultimate ob-  
14          jective of which is the “stabilization of greenhouse  
15          gas concentrations in the atmosphere at a level that  
16          would prevent dangerous anthropogenic interference  
17          with the climate system”;

18                   (3) although science currently cannot determine  
19          precisely what atmospheric concentrations are “dan-  
20          gerous”, the current trajectory of greenhouse gas  
21          emissions will lead to a continued rise in greenhouse  
22          gas concentrations in the atmosphere, not stabiliza-  
23          tion;

24                   (4) the remaining scientific uncertainties call  
25          for temperance of human actions, but not inaction;

1           (5) greenhouse gases are associated with a wide  
2       range of human activities, including energy produc-  
3       tion, transportation, agriculture, forestry, manufac-  
4       turing, buildings, and other activities;

5           (6) the economic consequences of poorly de-  
6       signed climate change response strategies, or of in-  
7       action, may cost the global economy trillions of dol-  
8       lars;

9           (7) a large share of this economic burden would  
10      be borne by the United States;

11          (8) stabilization of greenhouse gas concentra-  
12      tions in the atmosphere will require transformational  
13      change in the global energy system and other emit-  
14      ting sectors at an almost unimaginable level—a  
15      veritable industrial revolution is required;

16          (9) such a revolution can occur only if the revo-  
17      lution is preceded by research and development that  
18      leads to bold technological breakthroughs;

19          (10) over the decade preceding the date of en-  
20      actment of this Act—

21              (A) energy research and development  
22      budgets in the public and private sectors have  
23      declined precipitously and have not been fo-  
24      cused on the climate change response challenge;  
25      and

1 (B) the investments that have been made  
2 have not been guided by a comprehensive strat-  
3 egy;

4 (11) the negative trends in research and devel-  
5 opment funding described in paragraph (10) must  
6 be reversed with a focus on not only traditional en-  
7 ergy research and development, but also bolder,  
8 breakthrough research;

9 (12) much more progress could be made on the  
10 issue of climate change if the United States were to  
11 adopt a new approach for addressing climate change  
12 that included, as an ultimate long-term goal—

13 (A) stabilization of greenhouse gas con-  
14 centrations in the atmosphere at a level that  
15 would prevent dangerous anthropogenic inter-  
16 ference with the climate system; and

17 (B) a response strategy with 4 key ele-  
18 ments consisting of—

19 (i) definition of interim emission miti-  
20 gation levels, that, coupled with specific  
21 mitigation approaches and after taking  
22 into account actions by other nations (if  
23 any), would result in stabilization of green-  
24 house gas concentrations;



1 (ii) technology development,  
2 including—

3 (I) a national commitment to  
4 double energy research and develop-  
5 ment by the United States public and  
6 private sectors; and

7 (II) in carrying out such research  
8 and development, a national commit-  
9 ment to provide a high degree of em-  
10 phasis on bold, breakthrough tech-  
11 nologies that will make possible a pro-  
12 found transformation of the energy,  
13 transportation, industrial, agricul-  
14 tural, and building sectors of the  
15 United States;

16 (iii) climate adaptation research  
17 that—

18 (I) focuses on response actions  
19 necessary to adapt to climate change  
20 that may have already occurred;

21 (II) focuses on response actions  
22 necessary to adapt to climate change  
23 that may occur under any future cli-  
24 mate change scenario;

25 (iv) climate science research that—

1 (I) builds on the substantial sci-  
2 entific understanding of climate  
3 change that exists as of the date of  
4 enactment of this Act;

5 (II) focuses on resolving the re-  
6 maining scientific, technical, and eco-  
7 nomic uncertainties to aid in the de-  
8 velopment of sound response strate-  
9 gies; and

10 (13) inherent in each of the 4 key elements of  
11 the response strategy is consideration of the inter-  
12 national nature of the challenge, which will  
13 require—

14 (A) establishment of joint climate response  
15 strategies and joint research programs;

16 (B) assistance to developing countries and  
17 countries in transition for building technical  
18 and institutional capacities and incentives for  
19 addressing the challenge; and

20 (C) promotion of public awareness of the  
21 issue.

22 **SEC. 1013. PURPOSE.**

23 The purpose of this title is to implement the new ap-  
24 proach described in section 1012(12) by developing a na-  
25 tional focal point for climate change response through—

1           (1) the establishment of the National Office of  
2       Climate Change Response within the Executive Of-  
3       fice of the President to develop the United States  
4       Climate Change Response Strategy that—

5           (A) incorporates the 4 key elements of that  
6       new approach;

7           (B) is supportive of and integrated in the  
8       overall energy, transportation, industrial, agri-  
9       cultural, forestry, and environmental policies of  
10      the United States;

11          (C) takes into account—

12           (i) the diversity of energy sources and  
13      technologies;

14           (ii) supply-side and demand-side solu-  
15      tions; and

16           (iii) national infrastructure, energy  
17      distribution, and transportation systems;

18          (D) provides for the inclusion and equi-  
19      table participation of Federal, State, tribal, and  
20      local government agencies, nongovernmental or-  
21      ganizations, academia, scientific bodies, indus-  
22      try, the public, and other interested parties;

23          (E) incorporates new models of Federal-  
24      State cooperation;

1 (F) defines a comprehensive energy tech-  
2 nology research and development program  
3 that—

4 (i) recognizes the important contribu-  
5 tions that research and development pro-  
6 grams in existence on the date of enact-  
7 ment of this title make toward addressing  
8 the climate change response challenge; and

9 (ii) includes an additional research  
10 and development agenda that focuses on  
11 the bold, breakthrough technologies that  
12 are critical to the long-term stabilization of  
13 greenhouse gas concentrations in the at-  
14 mosphere;

15 (G) includes consideration of other ef-  
16 forts to address critical environmental and  
17 health concerns, including clean air, clean  
18 water, and responsible land use policies;  
19 and

20 (H) incorporates initiatives to pro-  
21 mote the deployment of clean energy tech-  
22 nologies developed in the United States  
23 and abroad;

24 (2) the establishment of the Interagency Task  
25 Force, chaired by the Director of the White House

1 Office, to serve as the primary mechanism through  
2 which the heads of Federal agencies work together  
3 to develop and implement the Strategy;

4 (3) the establishment of the Office of Climate  
5 Change Technology within the Department of  
6 Energy—

7 (A) to manage, as its primary responsi-  
8 bility, an innovative research and development  
9 program that focuses on the bold, breakthrough  
10 technologies that are critical to the long-term  
11 stabilization of greenhouse gas concentrations  
12 in the atmosphere; and

13 (B) to provide analytical support and data  
14 to the White House Office, other agencies, and  
15 the public;

16 (4) the establishment of an independent review  
17 board—

18 (A) to review the Strategy and annually  
19 assess United States and international progress  
20 toward the goal of stabilization of greenhouse  
21 gas concentrations in the atmosphere at a level  
22 that would prevent dangerous anthropogenic in-  
23 terference with the climate system; and

24 (B) to assess—

1 (i) the performance of each Federal  
2 agency that has responsibilities under the  
3 Strategy; and

4 (ii) the adequacy of the budget of  
5 each such Federal agency to fulfill the re-  
6 sponsibilities of the Federal agency under  
7 the Strategy; and

8 (5) the establishment of offices in, or the car-  
9 rying out of activities by, the Department of Agri-  
10 culture, the Department of Transportation, the De-  
11 partment of Commerce, the Environmental Protec-  
12 tion Agency, and other Federal agencies as nec-  
13 essary to carry out this title.

14 **SEC. 1014. DEFINITIONS.**

15 In this title:

16 (1) CLIMATE-FRIENDLY TECHNOLOGY.—The  
17 term “climate-friendly technology” means any en-  
18 ergy supply or end-use technology that, over the life  
19 of the technology and compared to similar tech-  
20 nology in commercial use as of the date of enact-  
21 ment of this Act—

22 (A) results in reduced emissions of green-  
23 house gases;

24 (B) may substantially lower emissions of  
25 other pollutants; and

1 (C) may generate substantially smaller or  
2 less hazardous quantities of solid or liquid  
3 waste.

4 (2) DEPARTMENT.—The term “Department”  
5 means the Department of Energy.

6 (3) DEPARTMENT OFFICE.—The term “Depart-  
7 ment Office” means the Office of Climate Change  
8 Technology of the Department established by section  
9 1017(a).

10 (4) FEDERAL AGENCY.—The term “Federal  
11 agency” has the meaning given the term “agency”  
12 in section 551 of title 5, United States Code.

13 (5) GREENHOUSE GAS.—The term “greenhouse  
14 gas” means—

15 (A) an anthropogenic gaseous constituent  
16 of the atmosphere (including carbon dioxide,  
17 methane, nitrous oxide, chlorofluorocarbons,  
18 hydrofluorocarbons, perfluorocarbons, sulfur  
19 hexafluoride, and tropospheric ozone) that ab-  
20 sorbs and re-emits infrared radiation and influ-  
21 ences climate; and

22 (B) an anthropogenic aerosol (such as  
23 black soot) that absorbs solar radiation and in-  
24 fluences climate.

1           (6) INTERAGENCY TASK FORCE.—The term  
2           “Interagency Task Force” means the United States  
3           Climate Change Response Interagency Task Force  
4           established under section 1016(d).

5           (7) KEY ELEMENT.—The term “key element”,  
6           with respect to the Strategy, means—

7                   (A) definition of interim emission mitiga-  
8                   tion levels, that, coupled with specific mitigation  
9                   approaches and after taking into account ac-  
10                  tions by other nations (if any), would result in  
11                  stabilization of greenhouse gas concentrations;

12                  (B) technology development, including—

13                          (i) a national commitment to double  
14                          energy research and development by the  
15                          United States public and private sectors;  
16                          and

17                          (ii) in carrying out such research and  
18                          development, a national commitment to  
19                          provide a high degree of emphasis on bold,  
20                          breakthrough technologies that will make  
21                          possible a profound transformation of the  
22                          energy, transportation, industrial, agricul-  
23                          tural, and building sectors of the United  
24                          States;

25                  (C) climate adaptation research that—



1 (i) focuses on response actions nec-  
2 essary to adapt to climate change that may  
3 have already occurred;

4 (ii) focuses on response actions nec-  
5 essary to adapt to climate change that may  
6 occur under any future climate change sce-  
7 nario;

8 (D) climate science research that—

9 (i) builds on the substantial scientific  
10 understanding of climate change that ex-  
11 ists as of the date of enactment of this  
12 Act;

13 (ii) focuses on resolving the remaining  
14 scientific, technical, and economic uncer-  
15 tainties to aid in the development of sound  
16 response strategies.

17 (8) QUALIFIED INDIVIDUAL.—

18 (A) IN GENERAL.—The term “qualified in-  
19 dividual” means an individual who has dem-  
20 onstrated expertise and leadership skills to  
21 draw on other experts in diverse fields of knowl-  
22 edge that are relevant to addressing the climate  
23 change response challenge.

1 (B) FIELDS OF KNOWLEDGE.—The fields  
2 of knowledge referred to in subparagraph (A)  
3 are—

4 (i) the science of primary and sec-  
5 ondary climate change impacts;

6 (ii) energy and environmental econom-  
7 ics;

8 (iii) technology transfer and diffusion;

9 (iv) the social dimensions of climate  
10 change;

11 (v) climate change adaptation strate-  
12 gies;

13 (vi) fossil, nuclear, and renewable en-  
14 ergy technology;

15 (vii) energy efficiency and energy con-  
16 servation;

17 (viii) energy systems integration;

18 (ix) engineered and terrestrial carbon  
19 sequestration;

20 (x) transportation, industrial, and  
21 building sector concerns;

22 (xi) regulatory and market-based  
23 mechanisms for addressing climate change;

24 (xii) risk and decision analysis;

25 (xiii) strategic planning; and

1 (xiv) the international implications of  
2 climate change response strategies.

3 (9) REVIEW BOARD.—The term “Review  
4 Board” means the United States Climate Change  
5 Response Strategy Review Board established by sec-  
6 tion 1019.

7 (10) SECRETARY.—The term “Secretary”  
8 means the Secretary of Energy.

9 (11) STABILIZATION OF GREENHOUSE GAS CON-  
10 CENTRATIONS.—The term “stabilization of green-  
11 house gas concentrations” means the stabilization of  
12 greenhouse gas concentrations in the atmosphere at  
13 a level that would prevent dangerous anthropogenic  
14 interference with the climate system, recognizing  
15 that such a level should be achieved within a time  
16 frame sufficient to allow ecosystems to adapt natu-  
17 rally to climate change, to ensure that food produc-  
18 tion is not threatened and to enable economic devel-  
19 opment to proceed in a sustainable manner, as con-  
20 templated by the United Nations Framework Con-  
21 vention on Climate Change, done at New York on  
22 May 9, 1992.

23 (12) STRATEGY.—The term “Strategy” means  
24 the United States Climate Change Response Strat-  
25 egy developed under section 1015.

1           (13) WHITE HOUSE OFFICE.—The term “White  
2       House Office” means the National Office of Climate  
3       Change Response of the Executive Office of the  
4       President established by section 1016(a).

5   **SEC. 1015. UNITED STATES CLIMATE CHANGE RESPONSE**  
6           **STRATEGY.**

7       (a) IN GENERAL.—The Director of the White House  
8       Office shall develop the United States Climate Change Re-  
9       sponse Strategy, which shall—

10           (1) have the long-term goal of stabilization of  
11       greenhouse gas concentrations through actions taken  
12       by the United States and other nations;

13           (2) recognize that accomplishing the long-term  
14       goal of stabilization will take from many decades to  
15       more than a century, but acknowledging that signifi-  
16       cant actions must begin in the near term;

17           (3) build on the 4 key elements;

18           (4) be developed on the basis of an examination  
19       of a broad range of emissions levels and dates for  
20       achievement of those levels (including those evalu-  
21       ated by the Intergovernmental Panel on Climate  
22       Change and those consistent with U.S. treaty com-  
23       mitments) that, after taking into account by actions  
24       other nations (if any), would culminate in the sta-  
25       bilization of greenhouse gas concentrations;

1           (5) consider the broad range of activities and  
2           actions that can be taken by United States entities  
3           to reduce, avoid, or sequester greenhouse gas emis-  
4           sions both within the United States and in other na-  
5           tions through the use of market mechanisms, which  
6           may include but not limited to mitigation activities,  
7           terrestrial sequestration, earning offsets through  
8           carbon capture or project-based activities, trading of  
9           emissions credits in domestic and international mar-  
10          kets, and the application of the resulting credits  
11          from any of the above within the United States;

12          (6) minimize any adverse short-term and long-  
13          term social, economic, national security, and envi-  
14          ronmental impacts, including ensuring that the  
15          strategy is developed in an economically and environ-  
16          mentally sound manner;

17          (7) incorporate mitigation approaches leading  
18          to the development and deployment of advanced  
19          technologies and practices that will reduce, avoid, or  
20          sequester greenhouse gas emissions;

21          (8) recognize that the climate change response  
22          strategy is intended to guide the nation's effort to  
23          address climate change, but it shall not create a  
24          legal obligation on the part of any person or entity  
25          other than the duties of the Director of the White

1 House Office and Interagency Task Force in the de-  
2 velopment of the strategy;

3 (9) be consistent with the goals of energy,  
4 transportation, industrial, agricultural, forestry, en-  
5 vironmental, economic, and other relevant policies of  
6 the United States;

7 (10) be consistent with the goals of energy,  
8 transportation, industrial, agricultural, forestry, en-  
9 vironmental, and other relevant policies of the  
10 United States;

11 (11) have a scope that considers the totality of  
12 United States public, private, and public-private sec-  
13 tor actions that bear on the long-term goal;

14 (12) be based on an evaluation of a wide range  
15 of approaches for achieving the long-term goal, in-  
16 cluding evaluation of—

17 (A) a variety of cost-effective Federal and  
18 State policies, programs, standards, and incen-  
19 tives;

20 (B) policies that integrate and promote in-  
21 novative, market-based solutions in the United  
22 States and in foreign countries; and

23 (C) participation in other international in-  
24 stitutions, or in the support of international ac-  
25 tivities, that are established or conducted to fa-

1 facilitate stabilization of greenhouse gas con-  
2 centrations;

3 (13) in the final recommendations of the Strat-  
4 egy, emphasize response strategies that achieve the  
5 long-term goal and provide specific recommendations  
6 concerning—

7 (A) measures determined to be appropriate  
8 for short-term implementation, giving pref-  
9 erence to cost-effective and technologically fea-  
10 sible measures that will—

11 (i) produce measurable net reductions  
12 in United States emissions that lead to-  
13 ward achievement of the long-term goal;  
14 and

15 (ii) minimize any adverse short-term  
16 and long-term economic, environmental,  
17 national security, and social impacts on the  
18 United States;

19 (B) the development of technologies that  
20 have the potential for long-term  
21 implementation—

22 (i) giving preference to technologies  
23 that have the potential to reduce signifi-  
24 cantly the overall cost of stabilization of  
25 greenhouse gas concentrations; and

1 (ii) considering a full range of energy  
2 sources, energy conversion and use tech-  
3 nologies, and efficiency options;

4 (C) such changes in institutional and tech-  
5 nology systems as are necessary to adapt to cli-  
6 mate change in the short-term and the long-  
7 term;

8 (D) such review, modification, and en-  
9 hancement of the scientific, technical, and eco-  
10 nomic research efforts of the United States,  
11 and improvements to the data resulting from  
12 research, as are appropriate to improve the ac-  
13 curacy of predictions concerning climate change  
14 and the economic and social costs and opportu-  
15 nities relating to climate change; and

16 (E) changes that should be made to  
17 project and grant evaluation criteria under  
18 other Federal research and development pro-  
19 grams so that those criteria do not inhibit de-  
20 velopment of climate-friendly technologies;

21 (14) be developed in a manner that provides for  
22 meaningful participation by, and consultation  
23 among, Federal, State, tribal, and local government  
24 agencies, nongovernmental organizations, academia,  
25 scientific bodies, industry, the public, and other in-



1       terested parties in accordance with subsections  
2       (b)(4)(C)(iv)(II) and (d)(3)(B)(iii) of section 1016;

3           (15) address how the United States should en-  
4       gage State, tribal, and local governments in devel-  
5       oping and carrying out a response to climate change;

6           (16) promote, to the maximum extent prac-  
7       ticable, public awareness, outreach, and information-  
8       sharing to further the understanding of the full  
9       range of climate change-related issues;

10          (17) provide a detailed explanation of how the  
11       measures recommended by the Strategy will ensure  
12       that they do not result in serious harm to the econ-  
13       omy of the United States;

14          (18) provide a detailed explanation of how the  
15       measures recommended by the Strategy will achieve  
16       the long-term goal of stabilization of greenhouse gas  
17       concentrations;

18          (19) include any recommendations for legisla-  
19       tive and administrative actions necessary to imple-  
20       ment the Strategy;

21          (20) serve as a framework for climate change  
22       response actions by all Federal agencies;

23          (21) recommend which Federal agencies are, or  
24       should be, responsible for the various aspects of im-

1       plementation of the Strategy and any budgetary im-  
2       plications;

3           (22) address how the United States should en-  
4       gage foreign governments in developing an inter-  
5       national response to climate change; and

6           (23) be subject to review by an independent re-  
7       view board in accordance with section 1019.

8       (b) SUBMISSION TO CONGRESS.—Not later than 1  
9       year after the date of enactment of this title, the President  
10      shall submit to Congress the Strategy.

11      (c) UPDATING.—Not later than 2 years after the date  
12      of submission of the Strategy to Congress under sub-  
13      section (b), and at the end of each 2-year period there-  
14      after, the President shall submit to Congress an updated  
15      version of the Strategy.

16      (d) PROGRESS REPORTS.—Not later than 1 year  
17      after the date of submission of the Strategy to Congress  
18      under subsection (b), and at the end of each 1-year period  
19      thereafter, the President shall submit to Congress a report  
20      that—

21           (1) describes the progress on implementation of  
22      the Strategy; and

23           (2) provides recommendations for improvement of the  
24      Strategy and the implementation of the Strategy.

1 (e) ALIGNMENT WITH ENERGY, TRANSPORTATION,  
2 INDUSTRIAL, AGRICULTURAL, FORESTRY, AND OTHER  
3 POLICIES.—The President, the Director of the White  
4 House Office, the Secretary, and the other members of  
5 the Interagency Task Force shall work together to align  
6 the actions carried out under the Strategy and actions as-  
7 sociated with the energy, transportation, industrial, agri-  
8 cultural, forestry, and other relevant policies of the United  
9 States so that the objectives of both the Strategy and the  
10 policies are met without compromising the climate change-  
11 related goals of the Strategy or the goals of the policies.

12 **SEC. 1016. NATIONAL OFFICE OF CLIMATE CHANGE RE-**  
13 **SPONSE OF THE EXECUTIVE OFFICE OF THE**  
14 **PRESIDENT.**

15 (a) ESTABLISHMENT.—

16 (1) IN GENERAL.—There is established, within  
17 the Executive Office of the President, the National  
18 Office of Climate Change Response.

19 (2) FOCUS.—The White House Office shall  
20 have the focus of achieving the long-term goal of  
21 stabilization of greenhouse gas concentrations while  
22 minimizing adverse short-term and long-term eco-  
23 nomic and social impacts.

24 (3) DUTIES.—Consistent with paragraph (2),  
25 the White House Office shall—

1 (A) establish policies, objectives, and prior-  
2 ities for the Strategy;

3 (B) in accordance with subsection (d), es-  
4 tablish the Interagency Task Force to serve as  
5 the primary mechanism through which the  
6 heads of Federal agencies shall assist the Direc-  
7 tor of the White House Office in developing and  
8 implementing the Strategy;

9 (C) to the maximum extent practicable, en-  
10 sure that the Strategy is based on objective,  
11 quantitative analysis, drawing on the analytical  
12 capabilities of Federal and State agencies, espe-  
13 cially the Department Office;

14 (D) advise the President concerning nec-  
15 essary changes in organization, management,  
16 budgeting, and personnel allocation of Federal  
17 agencies involved in climate change response ac-  
18 tivities; and

19 (E) advise the President and notify a Fed-  
20 eral agency if the policies and discretionary pro-  
21 grams of the agency are not well aligned with,  
22 or are not contributing effectively to, the long-  
23 term goal of stabilization of greenhouse gas  
24 concentrations.

25 (b) DIRECTOR OF THE WHITE HOUSE OFFICE.—

1           (1) IN GENERAL.—The White House Office  
2 shall be headed by a Director, who shall report di-  
3 rectly to the President.

4           (2) APPOINTMENT.—The Director of the White  
5 House Office shall be a qualified individual ap-  
6 pointed by the President, by and with the advice and  
7 consent of the Senate.

8           (3) DUTIES OF THE DIRECTOR OF THE WHITE  
9 HOUSE OFFICE.—

10           (A) STRATEGY.—In accordance with sec-  
11 tion 1015, the Director of the White House Of-  
12 fice shall coordinate the development and up-  
13 dating of the Strategy.

14           (B) INTERAGENCY TASK FORCE.—The Di-  
15 rector of the White House Office shall serve as  
16 Chairperson of the Interagency Task Force.

17           (C) ADVISORY DUTIES.—

18           (i) CLIMATE, ENERGY, TRANS-  
19 PORTATION, INDUSTRIAL, AGRICUL-  
20 TURAL, BUILDING, FORESTRY, AND  
21 OTHER PROGRAMS.—The Director of  
22 the White House Office, using an in-  
23 tegrated perspective considering the  
24 totality of actions in the United

1 States, shall advise the President and  
2 the heads of Federal agencies on—

3 (I) the extent to which United  
4 States energy, transportation, indus-  
5 trial, agricultural, forestry, building,  
6 and other relevant programs are capa-  
7 ble of producing progress on the long-  
8 term goal of stabilization of green-  
9 house gas concentrations; and

10 (II) the extent to which proposed  
11 or newly created energy, transpor-  
12 tation, industrial, agricultural, for-  
13 estry, building, and other relevant  
14 programs positively or negatively af-  
15 fect the ability of the United States  
16 to achieve the long-term goal of sta-  
17 bilization of greenhouse gas con-  
18 centrations.

19 (ii) TAX, TRADE, AND FOREIGN POLI-  
20 CIES.—The Director of the White House  
21 Office, using an integrated perspective con-  
22 sidering the totality of actions in the  
23 United States, shall advise the President  
24 and the heads of Federal agencies on—

1 (I) the extent to which the  
2 United States tax policy, trade policy,  
3 and foreign policy are capable of pro-  
4 ducing progress on the long-term goal  
5 of stabilization of greenhouse gas con-  
6 centrations; and

7 (II) the extent to which proposed  
8 or newly created tax policy, trade pol-  
9 icy, and foreign policy positively or  
10 negatively affect the ability of the  
11 United States to achieve the long-  
12 term goal of stabilization of green-  
13 house gas concentrations.

14 (iii) INTERNATIONAL TREATIES.—The  
15 Secretary of State, acting in conjunction  
16 with the Interagency Task Force and using  
17 the analytical tools available to the White  
18 House Office, shall provide to the Director  
19 of the White House Office an opinion  
20 that—

21 (I) specifies, to the maximum ex-  
22 tent practicable, the economic and en-  
23 vironmental costs and benefits of any  
24 proposed international treaties or  
25 components of treaties that have an

1 influence on greenhouse gas manage-  
2 ment; and

3 (II) assesses the extent to which  
4 the treaties advance the long-term  
5 goal of stabilization of greenhouse gas  
6 concentrations, while minimizing ad-  
7 verse short-term and long-term eco-  
8 nomic and social impacts and consid-  
9 ering other impacts.

10 (iv) CONSULTATION.—

11 (I) WITH MEMBERS OF INTER-  
12 AGENCY TASK FORCE.—To the extent  
13 practicable and appropriate, the Di-  
14 rector of the White House Office shall  
15 consult with all members of the Inter-  
16 agency Task Force and other inter-  
17 ested parties before providing advice  
18 to the President.

19 (II) WITH OTHER INTERESTED  
20 PARTIES.—The Director of the White  
21 House Office shall establish a process  
22 for obtaining the meaningful partici-  
23 pation of Federal, State, tribal, and  
24 local government agencies, nongovern-  
25 mental organizations, academia, sci-



1                   entific bodies, industry, the public,  
2                   and other interested parties in the  
3                   formulation of advice to be provided  
4                   to the President.

5                   (D) PUBLIC EDUCATION, AWARENESS,  
6                   OUTREACH, AND INFORMATION-SHARING.—The  
7                   Director of the White House Office, to the max-  
8                   imum extent practicable, shall promote public  
9                   awareness, outreach, and information-sharing  
10                  to further the understanding of the full range  
11                  of climate change-related issues.

12                  (4) ANNUAL REPORTS.—The Director of the  
13                  White House Office, in consultation with the Inter-  
14                  agency Task Force and other interested parties,  
15                  shall prepare an annual report for submission by the  
16                  President to Congress that—

17                       (A) assesses progress in implementation of  
18                       the Strategy;

19                       (B) assesses progress, in the United States  
20                       and in foreign countries, toward the long-term  
21                       goal of stabilization of greenhouse gas con-  
22                       centrations;

23                       (C) assesses progress toward meeting cli-  
24                       mate change-related international obligations;

1 (D) makes recommendations for actions by  
2 the Federal Government designed to close any  
3 gap between progress-to-date and the measures  
4 that are necessary to achieve the long-term goal  
5 of stabilization of greenhouse gas concentra-  
6 tions; and

7 (E) addresses the totality of actions in the  
8 United States that relate to the 4 key elements.

9 (5) ANALYSIS.—During development of the  
10 Strategy, preparation of the annual reports sub-  
11 mitted under paragraph (5), and provision of advice  
12 to the President and the heads of Federal agencies,  
13 the Director of the White House Office shall place  
14 significant emphasis on the use of objective, quan-  
15 titative analysis, taking into consideration any un-  
16 certainties associated with the analysis.

17 (c) STAFF.—

18 (1) IN GENERAL.—The Director of the White  
19 House Office shall employ a professional staff of not  
20 more than 25 individuals to carry out the duties of  
21 the White House Office.

22 (2) INTERGOVERNMENTAL PERSONNEL AND  
23 FELLOWSHIPS.—The Director of the White House  
24 Office may use the authority provided by the Inter-  
25 governmental Personnel Act of 1970 (42 U.S.C.

1       4701 et seq.) and subchapter VI of chapter 33 of  
2       title 5, United States Code, and fellowships, to ob-  
3       tain staff from academia, scientific bodies, nonprofit  
4       organizations, and national laboratories, for appoint-  
5       ments of a limited term.

6       (d) INTERAGENCY TASK FORCE.—

7               (1) IN GENERAL.—The Director of the White  
8       House Office shall establish the United States Cli-  
9       mate Change Response Interagency Task Force.

10              (2) COMPOSITION.—The Interagency Task  
11       Force shall be composed of—

12                      (A) the Director of the White House Of-  
13       fice, who shall serve as Chairperson;

14                      (B) the Secretary of State;

15                      (C) the Secretary;

16                      (D) the Secretary of Commerce;

17                      (E) the Secretary of the Treasury;

18                      (F) the Secretary of Transportation;

19                      (G) the Secretary of Agriculture;

20                      (H) the Administrator of the Environ-  
21       mental Protection Agency;

22                      (I) the Administrator of the Agency for  
23       International Development;

24                      (J) the United States Trade Representa-  
25       tive;

1 (K) the National Security Advisor;

2 (L) the Chairman of the Council of Eco-  
3 nomic Advisers;

4 (M) the Chairman of the Council on Envi-  
5 ronmental Quality;

6 (N) the Director of the Office of Science  
7 and Technology Policy;

8 (O) the Chairperson of the Subcommittee  
9 on Global Change Research (which performs  
10 the functions of the Committee on Earth and  
11 Environmental Sciences established by section  
12 102 of the Global Change Research Act of 1990  
13 (15 U.S.C. 2932)); and

14 (P) the heads of such other Federal agen-  
15 cies as the Chairperson determines should be  
16 members of the Interagency Task Force.

17 (3) STRATEGY.—

18 (A) IN GENERAL.—The Interagency Task  
19 Force shall serve as the primary forum through  
20 which the Federal agencies represented on the  
21 Interagency Task Force jointly—

22 (i) assist the Director of the White  
23 House Office in developing and updating  
24 the Strategy; and

1                   (ii) assist the Director of the White  
2                   House Office in preparing annual reports  
3                   under subsection (b)(5).

4                   (B) REQUIRED ELEMENTS.—In carrying  
5                   out subparagraph (A), the Interagency Task  
6                   Force shall—

7                   (i) take into account the long-term  
8                   goal and other requirements of the Strat-  
9                   egy specified in section 1015(a);

10                  (ii) consult with State, tribal, and  
11                  local government agencies, nongovern-  
12                  mental organizations, academia, scientific  
13                  bodies, industry, the public, and other in-  
14                  terested parties; and

15                  (iii) build consensus around a Strat-  
16                  egy that is based on strong scientific, tech-  
17                  nical, and economic analyses.

18                  (4) WORKING GROUPS.—The Chairperson of  
19                  the Interagency Task Force may establish such top-  
20                  ical working groups as are necessary to carry out  
21                  the duties of the Interagency Task Force.

22                  (e) PROVISION OF SUPPORT STAFF.—In accordance  
23                  with procedures established by the Chairperson of the  
24                  Interagency Task Force, the Federal agencies represented  
25                  on the Interagency Task Force shall provide staff from

1 the agencies to support information, data collection, and  
2 analyses required by the Interagency Task Force.

3 (f) HEARINGS.—On request of the Chairperson, the  
4 Interagency Task Force may hold such hearings, meet and  
5 act at such times and places, take such testimony, and  
6 receive such evidence as the Interagency Task Force con-  
7 siders to be appropriate.

8 **SEC. 1017. TECHNOLOGY INNOVATION PROGRAM IMPLE-**  
9 **MENTED THROUGH THE OFFICE OF CLIMATE**  
10 **CHANGE TECHNOLOGY OF THE DEPARTMENT**  
11 **OF ENERGY.**

12 (a) ESTABLISHMENT OF OFFICE OF CLIMATE  
13 CHANGE TECHNOLOGY OF THE DEPARTMENT OF EN-  
14 ERGY.—

15 (1) IN GENERAL.—There is established, within  
16 the Department, the Office of Climate Change Tech-  
17 nology.

18 (2) DUTIES.—The Department Office shall—

19 (A) manage an energy technology research  
20 and development program that directly supports  
21 the Strategy by—

22 (i) focusing on high-risk, bold, break-  
23 through technologies that—

24 (I) have significant promise of  
25 contributing to the national climate

1 change policy of long-term stabiliza-  
2 tion of greenhouse gas concentrations  
3 by—

4 (aa) mitigating the emis-  
5 sions of greenhouse gases;

6 (bb) removing and seques-  
7 tering greenhouse gases from  
8 emission streams; or

9 (cc) removing and seques-  
10 tering greenhouse gases from the  
11 atmosphere;

12 (II) are not being addressed sig-  
13 nificantly by other Federal programs;  
14 and

15 (III) would represent a substan-  
16 tial advance beyond technology avail-  
17 able on the date of enactment of this  
18 title;

19 (ii) forging fundamentally new re-  
20 search and development partnerships  
21 among various Department, other Federal,  
22 and State programs, particularly between  
23 basic science and energy technology pro-  
24 grams, in cases in which such partnerships  
25 have significant potential to affect the abil-

1           ity of the United States to achieve sta-  
2           bilization of greenhouse gas concentrations  
3           at the lowest possible cost;

4                 (iii) forging international research and  
5           development partnerships that are in the  
6           interests of the United States and make  
7           progress on stabilization of greenhouse gas  
8           concentrations;

9                 (iv) making available, through moni-  
10          toring, experimentation, and analysis, data  
11          that are essential to proving the technical  
12          and economic viability of technology cen-  
13          tral to addressing climate change; and

14                (v) transitioning research and develop-  
15          ment programs to other program offices of  
16          the Department once such a research and  
17          development program crosses the threshold  
18          of high-risk research and moves into the  
19          realm of more conventional technology de-  
20          velopment;

21                (B) prepare annual reports in accordance  
22          with subsection (b)(6);

23                (C) identify the total contribution of all  
24          Department programs to climate change re-  
25          sponse;



1           (D) provide substantial analytical support  
2           to the White House Office, particularly support  
3           in the development of the Strategy and associ-  
4           ated progress reporting; and

5           (E) advise the Secretary on climate  
6           change-related issues, including necessary  
7           changes in Department organization, manage-  
8           ment, budgeting, and personnel allocation in the  
9           programs involved in climate change response-  
10          related activities.

11       (b) DIRECTOR OF THE DEPARTMENT OFFICE.—

12           (1) IN GENERAL.—The Department Office shall  
13           be headed by a Director, who shall report directly to  
14           the Secretary.

15           (2) APPOINTMENT.—The Director of the De-  
16           partment Office shall be an employee of the Federal  
17           Government who is a qualified individual appointed  
18           by the President.

19           (3) TERM.—The Director of the Department  
20           Office shall be appointed for a term of 4 years.

21           (4) VACANCIES.—A vacancy in the position of  
22           the Director of the Department Office shall be filled  
23           in the same manner as the original appointment was  
24           made.

1           (5) DUTIES OF THE DIRECTOR OF THE DE-  
2       PARTMENT OFFICE.—

3           (A) TECHNOLOGY DEVELOPMENT.—The  
4       Director of the Department Office shall manage  
5       the energy technology research and development  
6       program described in subsection (a)(2)(A).

7           (B) STRATEGY.—The Director of the De-  
8       partment Office shall support development of  
9       the Strategy through the provision of staff and  
10      analytical support.

11          (C) INTERAGENCY TASK FORCE.—Through  
12      active participation in the Interagency Task  
13      Force, the Director of the Department Office  
14      shall—

15           (i) based on the analytical capabilities  
16      of the Department Office, share analyses  
17      of alternative climate change response  
18      strategies with other members of the Inter-  
19      agency Task Force to assist all members in  
20      understanding—

21           (I) the scale of the climate  
22      change response challenge; and

23           (II) how the actions of the Fed-  
24      eral agencies of the members posi-

1                   tively or negatively contribute to cli-  
2                   mate change solutions; and

3                   (ii) determine how the energy tech-  
4                   nology research and development program  
5                   described in subsection (a)(2)(A) can be  
6                   designed for maximum impact on the long-  
7                   term goal of stabilization of greenhouse  
8                   gas concentrations.

9                   (D) TOOLS, DATA, AND CAPABILITIES.—

10                  The Director of the Department Office shall  
11                  foster the development of tools, data, and capa-  
12                  bilities to ensure that—

13                         (i) the United States has a robust ca-  
14                         pability for evaluating alternative climate  
15                         change response scenarios; and

16                         (ii) the Department Office provides  
17                         long-term analytical continuity during the  
18                         terms of service of successive Presidents.

19                   (E) ADVISORY DUTIES.—The Director of  
20                  the Department Office shall advise the Sec-  
21                  retary on all aspects of climate change re-  
22                  sponse.

23                   (6) ANNUAL REPORTS.—The Director of the  
24                  Department Office shall prepare an annual report

1 for submission by the Secretary to Congress and the  
2 White House Office that—

3 (A) assesses progress toward meeting the  
4 goals of the energy technology research and de-  
5 velopment program described in subsection  
6 (a)(2)(A);

7 (B) assesses the activities of the Depart-  
8 ment Office;

9 (C) assesses the contributions of all energy  
10 technology research and development programs  
11 of the Department (including science programs)  
12 to the long-term goal and other requirements of  
13 the Strategy specified in section 1015(a); and

14 (D) makes recommendations for actions by  
15 the Department and other Federal agencies to  
16 address the components of technology develop-  
17 ment that are necessary to support the Strat-  
18 egy.

19 (7) ANALYSIS.—During development of the  
20 Strategy, annual reports submitted under paragraph  
21 (6), and advice to the Secretary, the Director of the  
22 Department Office shall place significant emphasis  
23 on the use of objective, quantitative analysis, taking  
24 into consideration any associated uncertainties.

1 (c) STAFF.—The Director of the Department Office  
2 shall employ a professional staff of not more than 25 indi-  
3 viduals to carry out the duties of the Department Office.

4 (d) INTERGOVERNMENTAL PERSONNEL AND FEL-  
5 LOWSHIPS.—The Department Office may use the author-  
6 ity provided by the Intergovernmental Personnel Act of  
7 1970 (42 U.S.C. 4701 et seq.), subchapter VI of chapter  
8 33 of title 5, United States Code, and other Departmental  
9 personnel authorities, to obtain staff from academia, sci-  
10 entific bodies, nonprofit organizations, industry, and na-  
11 tional laboratories, for appointments of a limited term.

12 (e) RELATIONSHIP TO OTHER DEPARTMENT PRO-  
13 GRAMS.—Each project carried out by the Department Of-  
14 fice shall be—

15 (1) initiated only after consultation with 1 or  
16 more other appropriate program offices of the De-  
17 partment that support research and development in  
18 areas relating to the project;

19 (2) managed by the Department Office; and

20 (3) in the case of a project that reaches a suffi-  
21 cient level of maturity, with the concurrence of the  
22 Department Office and an appropriate office de-  
23 scribed in paragraph (1), transferred to the appro-  
24 priate office, along with the funds necessary to con-  
25 tinue the project to the point at which non-Federal

1 funding can provide substantial support for the  
2 project.

3 (f) ANALYSIS OF STRATEGIC CLIMATE CHANGE RE-  
4 SPONSE.—

5 (1) IN GENERAL.—

6 (A) GOAL.—The Department Office shall  
7 foster the development and application of ad-  
8 vanced computational tools, data, and capabili-  
9 ties that, together with the capabilities of other  
10 federal agencies, support integrated assessment  
11 of alternative climate change response scenarios  
12 and implementation of the Strategy.

13 (B) PARTICIPATION AND SUPPORT.—  
14 Projects supported by the Department Office  
15 may include participation of, and be supported  
16 by, other Federal agencies that have a role in  
17 the development, commercialization, or transfer  
18 of energy, transportation, industrial, agricul-  
19 tural, forestry, or other climate change-related  
20 technology.

21 (2) PROGRAMS.—

22 (A) IN GENERAL.—The Department Office  
23 shall—

24 (i) develop and maintain core analyt-  
25 ical competencies and complex, integrated

1 computational modeling capabilities that,  
2 together with the capabilities of other fed-  
3 eral agencies, are necessary to support the  
4 design and implementation of the Strategy;  
5 and

6 (ii) track United States and inter-  
7 national progress toward the long-term  
8 goal of stabilization of greenhouse gas con-  
9 centrations.

10 (B) INTERNATIONAL CARBON DIOXIDE SE-  
11 QUESTRATION MONITORING AND DATA PRO-  
12 GRAM.—In consultation with Federal, State,  
13 academic, scientific, private sector, nongovern-  
14 mental, tribal, and international carbon capture  
15 and sequestration technology programs, the De-  
16 partment Office shall design and carry out an  
17 international carbon dioxide sequestration moni-  
18 toring and data program to collect, analyze, and  
19 make available the technical and economic data  
20 to ascertain—

21 (i) whether engineered sequestration  
22 and terrestrial sequestration will be accept-  
23 able technologies from regulatory, eco-  
24 nomic, and international perspectives;

- 1                   (ii) whether carbon dioxide seques-  
2                   tered in geological formations or ocean sys-  
3                   tems is stable and has inconsequential  
4                   leakage rates on a geologic time-scale; and  
5                   (iii) the extent to which forest, agri-  
6                   cultural, and other terrestrial systems are  
7                   suitable carbon sinks.

8                   (3) AREAS OF EXPERTISE.—

9                   (A) IN GENERAL.—The Department Office  
10                  shall develop and maintain expertise in inte-  
11                  grated assessment, modeling, and related capa-  
12                  bilities necessary—

13                   (i) to understand the relationship be-  
14                   tween natural, agricultural, industrial, en-  
15                   ergy, and economic systems;

16                   (ii) to design effective research and  
17                   development programs; and

18                   (iii) to develop and implement the  
19                   Strategy.

20                   (B) TECHNOLOGY TRANSFER AND DIFFU-  
21                  SION.—The expertise described in clause (i)  
22                  shall include knowledge of technology transfer  
23                  and technology diffusion in United States mar-  
24                  kets and foreign markets.



1           (4) DISSEMINATION OF INFORMATION.—The  
2     Department Office shall ensure, to the maximum ex-  
3     tent practicable, that technical and scientific knowl-  
4     edge relating to greenhouse gas emission reduction,  
5     avoidance, and sequestration is broadly disseminated  
6     through publications, fellowships, and training pro-  
7     grams.

8           (5) ASSESSMENTS.—In a manner consistent  
9     with the Strategy, the Department shall conduct as-  
10    sessments of deployment of climate-friendly tech-  
11    nology.

12          (6) USE OF PRIVATE SECTOR FUNDING.—

13               (A) IN GENERAL.—The Department Office  
14     shall create an operating model that allows for  
15     collaboration, division of effort, and cost shar-  
16     ing with industry on individual climate change  
17     response projects.

18               (B) REQUIREMENTS.—Although cost shar-  
19     ing in some cases may be appropriate, the De-  
20     partment Office shall focus on long-term high-  
21     risk research and development and should not  
22     make industrial partnerships or cost sharing a  
23     requirement, if such a requirement would bias  
24     the activities of the Department Office toward  
25     incremental innovations.

1 (C) REEVALUATION ON TRANSITION.—At  
2 such time as any bold, breakthrough research  
3 and development program reaches a sufficient  
4 level of technological maturity such that the  
5 program is transitioned to a program office of  
6 the Department other than the Department Of-  
7 fice, the cost-sharing requirements and criteria  
8 applicable to the program should be reevalu-  
9 ated.

10 (D) PUBLICATION IN FEDERAL REG-  
11 ISTER.—Each cost-sharing agreement entered  
12 into under this subparagraph shall be published  
13 in the Federal Register.

14 **SEC. 1018. ADDITIONAL OFFICES AND ACTIVITIES.**

15 The Secretary of Agriculture, the Secretary of Trans-  
16 portation, the Secretary of Commerce, the Administrator  
17 of the Environmental Protection Agency, and the heads  
18 of other Federal agencies may establish such offices and  
19 carry out such activities, in addition to those established  
20 or authorized by this Act, as are necessary to carry out  
21 this Act.

22 **SEC. 1019. UNITED STATES CLIMATE CHANGE RESPONSE**  
23 **STRATEGY REVIEW BOARD.**

24 (a) ESTABLISHMENT.—There is established as an  
25 independent establishment within the executive branch the

1 United States Climate Change Response Strategy Review  
2 Board.

3 (b) MEMBERSHIP.—

4 (1) COMPOSITION.—The Review Board shall  
5 consist of 11 members who shall be appointed, not  
6 later than 90 days after the date of enactment of  
7 this Act, by the President by and with the advice  
8 and consent of the Senate, from among qualified in-  
9 dividuals nominated by the National Academy of  
10 Sciences in accordance with paragraph (2).

11 (2) NOMINATIONS.—Not later than 60 days  
12 after the date of enactment of this Act, after taking  
13 into strong consideration the guidance and rec-  
14 ommendations of a broad range of scientific and  
15 technical societies that have the capability of recom-  
16 mending qualified individuals, the National Academy  
17 of Sciences shall nominate for appointment to the  
18 Review Board not fewer than 22 individuals who—

19 (A) are—

20 (i) qualified individuals; or

21 (ii) experts in a field of knowledge  
22 specified in section 1014(9)(B); and

23 (B) as a group represent broad, balanced  
24 expertise.

1           (3) PROHIBITION ON FEDERAL GOVERNMENT  
2       EMPLOYMENT.—A member of the Review Board  
3       shall not be an employee of the Federal Government.

4           (4) TERMS; VACANCIES.—

5               (A) TERMS.—

6                   (i) IN GENERAL.—Subject to clause  
7                   (ii), each member of the Review Board  
8                   shall be appointed for a term of 4 years.

9                   (ii) INITIAL TERMS.—

10                   (I) COMMENCEMENT DATE.—The  
11                   term of each member initially ap-  
12                   pointed to the Review Board shall  
13                   commence 120 days after the date of  
14                   enactment of this title.

15                   (II) TERMINATION DATE.—Of  
16                   the 11 members initially appointed to  
17                   the Review Board, 5 members shall be  
18                   appointed for a term of 2 years and 6  
19                   members shall be appointed for a  
20                   term of 4 years, to be designated by  
21                   the President at the time of appoint-  
22                   ment.

23               (B) VACANCIES.—

1 (i) IN GENERAL.—A vacancy on the  
2 Review Board shall be filled in the manner  
3 described in this subparagraph.

4 (ii) NOMINATIONS BY THE NATIONAL  
5 ACADEMY OF SCIENCES.—Not later than  
6 60 days after the date on which a vacancy  
7 commences, the National Academy of  
8 Sciences shall—

9 (I) after taking into strong con-  
10 sideration the guidance and rec-  
11 ommendations of a broad range of sci-  
12 entific and technical societies that  
13 have the capability of recommending  
14 qualified individuals, nominate, from  
15 among qualified individuals, not fewer  
16 than 2 individuals to fill the vacancy;  
17 and

18 (II) submit the names of the  
19 nominees to the President.

20 (iii) SELECTION.—Not later than 30  
21 days after the date on which the nomina-  
22 tions under clause (ii) are submitted to the  
23 President, the President shall select from  
24 among the nominees an individual to fill  
25 the vacancy.

1 (iv) SENATE CONFIRMATION.—An in-  
2 dividual appointed to fill a vacancy on the  
3 Review Board shall be appointed by and  
4 with the advice and consent of the Senate.

5 (5) APPLICABILITY OF ETHICS IN GOVERNMENT  
6 ACT OF 1978.—A member of the Review Board shall  
7 be deemed to be an individual subject to the Ethics  
8 in Government Act of 1978 (5 U.S.C. App.).

9 (6) CHAIRPERSON; VICE CHAIRPERSON.—The  
10 members of the Review Board shall select a Chair-  
11 person and a Vice Chairperson of the Review Board  
12 from among the members of the Review Board.

13 (c) DUTIES.—

14 (1) IN GENERAL.—Not later than 180 days  
15 after the date of submission of the initial Strategy  
16 under section 1015(b), each updated version of the  
17 Strategy under section 1015(c), and each progress  
18 report under section 1015(d), the Review Board  
19 shall submit to the President, Congress, and the  
20 heads of Federal agencies as appropriate a report  
21 assessing the adequacy of the Strategy or report.

22 (2) COMMENTS.—In reviewing the Strategy or  
23 a report under paragraph (1), the Review Board  
24 shall consider and comment on—

1 (A) the adequacy of effort and the appro-  
2 priateness of focus of the totality of all public,  
3 private, and public-private sector actions of the  
4 United States with respect to the 4 key ele-  
5 ments;

6 (B) the extent to which actions of the  
7 United States, with respect to climate change,  
8 complement or leverage international research  
9 and other efforts designed to manage global  
10 emissions of greenhouse gases, to further the  
11 long-term goal of stabilization of greenhouse  
12 gas concentrations;

13 (C) the funding implications of any rec-  
14 ommendations made by the Review Board; and

15 (D)(i) the effectiveness with which each  
16 Federal agency is carrying out the responsibil-  
17 ities of the Federal agency with respect to the  
18 short-term and long-term greenhouse gas man-  
19 agement goals; and

20 (ii) the adequacy of the budget of each  
21 such Federal agency to carry out those respon-  
22 sibilities.

23 (3) ADDITIONAL RECOMMENDATIONS.—

24 (A) IN GENERAL.—Subject to subpara-  
25 graph (B), the Review Board, at the request of

1 the President or Congress, may provide rec-  
2 ommendations on additional climate change-re-  
3 lated topics.

4 (B) SECONDARY DUTY.—The provision of  
5 recommendations under subparagraph (A) shall  
6 be a secondary duty to the primary duty of the  
7 Review Board of providing independent review  
8 of the Strategy and the reports under para-  
9 graphs (1) and (2).

10 (d) POWERS.—

11 (1) HEARINGS.—

12 (A) IN GENERAL.—On request of the  
13 Chairperson or a majority of the members of  
14 the Review Board, the Review Board may hold  
15 such hearings, meet and act at such times and  
16 places, take such testimony, and receive such  
17 evidence as the Review Board considers to be  
18 appropriate.

19 (B) ADMINISTRATION OF OATHS.—Any  
20 member of the Review Board may administer  
21 an oath or affirmation to any witness that ap-  
22 pears before the Review Board.

23 (2) PRODUCTION OF DOCUMENTS.—

24 (A) IN GENERAL.—On request of the  
25 Chairperson or a majority of the members of



1 the Review Board, and subject to applicable  
2 law, the Secretary or head of a Federal agency  
3 represented on the Interagency Task Force, or  
4 a contractor of such an agency, shall provide  
5 the Review Board with such records, files, pa-  
6 pers, data, and information as are necessary to  
7 respond to any inquiry of the Review Board  
8 under this Act.

9 (B) INCLUSION OF WORK IN PROGRESS.—

10 Subject to applicable law, information obtain-  
11 able under subparagraph (A)—

12 (i) shall not be limited to final work  
13 products; but

14 (ii) shall include draft work products  
15 and documentation of work in progress.

16 (3) POSTAL SERVICES.—The Review Board  
17 may use the United States mails in the same man-  
18 ner and under the same conditions as other agencies  
19 of the Federal Government.

20 (e) COMPENSATION OF MEMBERS.—A member of the  
21 Review Board shall be compensated at a rate equal to the  
22 daily equivalent of the annual rate of basic pay prescribed  
23 for level IV of the Executive Schedule under section 5315  
24 of title 5, United States Code, for each day (including

1 travel time) during which the member is engaged in the  
2 performance of the duties of the Review Board.

3 (f) TRAVEL EXPENSES.—A member of the Review  
4 Board shall be allowed travel expenses, including per diem  
5 in lieu of subsistence, at rates authorized for an employee  
6 of an agency under subchapter I of chapter 57 of title  
7 5, United States Code, while away from the home or reg-  
8 ular place of business of the member in the performance  
9 of the duties of the Review Board.

10 (g) STAFF.—

11 (1) IN GENERAL.—The Chairperson of the Re-  
12 view Board may, without regard to the provisions of  
13 title 5, United States Code, regarding appointments  
14 in the competitive service, appoint and terminate an  
15 executive director and such other additional per-  
16 sonnel as are necessary to enable the Review Board  
17 to perform the duties of the Review Board.

18 (2) CONFIRMATION OF EXECUTIVE DIREC-  
19 TOR.—The employment of an executive director shall  
20 be subject to confirmation by the Review Board.

21 (3) COMPENSATION.—

22 (A) IN GENERAL.—Except as provided in  
23 subparagraph (B), the Chairperson of the Re-  
24 view Board may fix the compensation of the ex-  
25 ecutive director and other personnel without re-

1           gard to the provisions of chapter 51 and sub-  
2           chapter III of chapter 53 of title 5, United  
3           States Code, relating to classification of posi-  
4           tions and General Schedule pay rates.

5           (B) MAXIMUM RATE OF PAY.—The rate of  
6           pay for the executive director and other per-  
7           sonnel shall not exceed the rate payable for  
8           level V of the Executive Schedule under section  
9           5316 of title 5, United States Code.

10          (h) PROCUREMENT OF TEMPORARY AND INTERMIT-  
11          TENT SERVICES.—The Chairperson of the Review Board  
12          may procure temporary and intermittent services in ac-  
13          cordance with section 3109(b) of title 5, United States  
14          Code, at rates for individuals that do not exceed the daily  
15          equivalent of the annual rate of basic pay prescribed for  
16          level V of the Executive Schedule under section 5316 of  
17          that title.

18       **SEC. 1020. AUTHORIZATION OF APPROPRIATIONS.**

19          (a) WHITE HOUSE OFFICE.—

20               (1) USE OF AVAILABLE APPROPRIATIONS.—  
21          From funds made available to Federal agencies for  
22          the fiscal year in which this Title is enacted, the  
23          President shall provide such sums as are necessary  
24          to carry out the duties of the White House Office

1 under this title until the date on which funds are  
2 made available under paragraph (2).

3 (2) AUTHORIZATION OF APPROPRIATIONS.—

4 There is authorized to be appropriated to the White  
5 House Office to carry out the duties of the White  
6 House Office under this Title \$5,000,000 for each of  
7 fiscal years 2003 through 2011, to remain available  
8 through September 30, 2011.

9 (b) DEPARTMENT OFFICE.—

10 (1) USE OF AVAILABLE APPROPRIATIONS.—

11 From funds made available to Federal agencies for  
12 the fiscal year in which this title is enacted, the  
13 President shall provide such sums as are necessary  
14 to carry out the duties of the Department Office  
15 under this Title until the date on which funds are  
16 made available under paragraph (2).

17 (2) AUTHORIZATION OF APPROPRIATIONS.—

18 There is authorized to be appropriated to the De-  
19 partment Office to carry out the duties of the De-  
20 partment Office under this title \$4,750,000,000 for  
21 the period of fiscal years 2003 through 2011, to re-  
22 main available through September 30, 2011.

23 (c) REVIEW BOARD.—

24 (1) USE OF AVAILABLE APPROPRIATIONS.—

25 From funds made available to Federal agencies for

1       the fiscal year in which this title is enacted, the  
2       President shall provide such sums as are necessary  
3       to carry out the duties of the Review Board under  
4       this title until the date on which funds are made  
5       available under paragraph (2).

6               (2) AUTHORIZATION OF APPROPRIATIONS.—  
7       There is authorized to be appropriated to the Review  
8       Board to carry out the duties of the Review Board  
9       under this title \$3,000,000 for each of fiscal years  
10      2003 through 2011, to remain available until ex-  
11      pended.

12      (d) ADDITIONAL AMOUNTS.—Amounts authorized to  
13      be appropriated under this section shall be in addition  
14      to—

15              (1) amounts made available to carry out the  
16      United States Global Change Research Program  
17      under the Global Change Research Act of 1990 (15  
18      U.S.C. 2921 et seq.); and

19              (2) amounts made available under other provi-  
20      sions of law for energy research and development.

## **Subtitle C—Science and Technology Policy**

### **SEC. 1031. GLOBAL CLIMATE CHANGE IN THE OFFICE OF SCIENCE AND TECHNOLOGY POLICY.**

Section 101(b) of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601(b)) is amended—

(1) by redesignating paragraphs (7) through (13) as paragraphs (8) through (14), respectively; and

(2) by inserting after paragraph (6) the following:

“(7) improving efforts to understand, assess, predict, mitigate, and respond to global climate change;”.

### **SEC. 1032. ESTABLISHMENT OF ASSOCIATE DIRECTOR FOR GLOBAL CLIMATE CHANGE.**

Section 203 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6612) is amended—

(1) by striking “four” in the second sentence and inserting “five”; and

(2) by striking “title.” in the second sentence and inserting “title, one of whom shall be responsible for global climate change science and tech-

1 nology under the Office of Science and Technology  
2 Policy.”.

## 3 **Subtitle D—Miscellaneous** 4 **Provisions**

### 5 **SEC. 1041. ADDITIONAL INFORMATION FOR REGULATORY** 6 **REVIEW.**

7 In each case that an agency prepares and submits  
8 a Statement of Energy Effects pursuant to Executive  
9 Order 13211 of May 18, 2001 (relating to actions con-  
10 cerning regulations that significantly affect energy supply,  
11 distribution, or use), or as part of compliance with Execu-  
12 tive Order 12866 of September 30, 1993 (relating to regu-  
13 latory planning and review) or its successor, the agency  
14 shall also submit an estimate of the change in net annual  
15 greenhouse gas emissions resulting from the proposed sig-  
16 nificant energy action. In the case in which there is an  
17 increase in net annual greenhouse gas emissions as a re-  
18 sult of the proposed significant energy action, the agency  
19 shall indicate what policies or measures will be undertaken  
20 to mitigate or offset the increased emissions.

### 21 **SEC. 1042. GREENHOUSE GAS EMISSIONS FROM FEDERAL** 22 **FACILITIES.**

23 (a) METHODOLOGY.—

24 (1) IN GENERAL.—Not later than one year  
25 after the date of enactment of this section, the Sec-

1       retary of Energy, Secretary of Agriculture, Secretary  
2       of Commerce, and Administrator of the Environ-  
3       mental Protection Agency shall publish a jointly de-  
4       veloped methodology for preparing estimates of an-  
5       nual net greenhouse gas emissions from all Federally  
6       owned, leased, or operated facilities and emission  
7       sources, including mobile sources.

8               (2) INDIRECT AND OTHER EMISSIONS.—The  
9       methodology under paragraph (1) shall include emis-  
10      sions resulting from any Federal procurement action  
11      with an annual Federal expenditure of greater than  
12      \$100 million, indirect emissions associated with Fed-  
13      eral electricity consumption, and other emissions re-  
14      sulting from Federal actions that the heads of the  
15      agencies under paragraph (1) may jointly decide to  
16      include in the estimates.

17      (b) PUBLICATION.—Not later than 18 months after  
18      the date of enactment of this section, and annually there-  
19      after, the Secretary of Energy shall publish an estimate  
20      of annual net greenhouse gas emissions from all Federally  
21      owned, leased, or operated facilities and emission sources,  
22      using the methodology published under subsection (a).



**TITLE XI—NATIONAL  
GREENHOUSE GAS DATABASE**

**SEC. 1101. PURPOSE.**

The purpose of this title is to establish a greenhouse gas inventory, reductions registry, and information system that—

(1) is complete, consistent, transparent, and accurate;

(2) will create reliable and accurate data that can be used by public and private entities to design efficient and effective greenhouse gas emission reduction strategies; and,

(3) will encourage and acknowledge greenhouse gas emissions reductions.

**SEC. 1102. DEFINITIONS.**

In this title:

(1) DATABASE.—The term “database” means the National Greenhouse Gas Database established under section 1104.

(2) DESIGNATED AGENCY OR AGENCIES.—The term “Designated Agency or Agencies” means the Department or Departments and/or Agency or Agencies given the responsibility for a function or program under the Memorandum of Agreement entered into pursuant to Section 1103.

1           (3) DIRECT EMISSIONS.—The term “direct  
2       emissions” means greenhouse gas emissions by an  
3       entity from a facility that is owned or controlled by  
4       that entity.

5           (4) ENTITY.—The term “entity” means—

6                 (A) a person located in the United States;

7                 or

8                 (B) a public or private entity, to the extent  
9       that the entity operates in the United States.

10          (5) FACILITY.—The term “facility” means all  
11       buildings, structures, or installations located on any  
12       one or more of contiguous or adjacent property or  
13       properties, or a fleet of 20 or more transportation  
14       vehicles, under common control of the same entity.

15          (6) GREENHOUSE GAS.—The term “greenhouse  
16       gas” means—

17                 (A) carbon dioxide;

18                 (B) methane;

19                 (C) nitrous oxide;

20                 (D) hydrofluorocarbons;

21                 (E) perfluorocarbons; and

22                 (F) sulfur hexafluoride.

23          (7) INDIRECT EMISSIONS.—The term “indirect  
24       emissions” means greenhouse gas emissions that are  
25       a consequence of the activities of an entity but that

1 are emitted from a facility owned or controlled by  
2 another entity and are not already reported as direct  
3 emissions by a covered entity.

4 (8) SEQUESTRATION.—The term “sequestra-  
5 tion” means the capture, long-term separation, isola-  
6 tion, or removal of greenhouse gases from the at-  
7 mosphere, including through a biological or geologic  
8 method such as reforestation or an underground res-  
9ervoir.

10 **SEC. 1103. ESTABLISHMENT OF MEMORANDUM OF AGREE-**  
11 **MENT.**

12 (a) Not later than one year after the date of enact-  
13 ment of this title, the President, acting through the Chair-  
14 man of the Council on Environmental Quality, shall direct  
15 the Department of Energy, the Department of Commerce,  
16 the Department of Agriculture, the Department of Trans-  
17 portation and the Environmental Protection Agency, to  
18 enter into a Memorandum of Agreement that will—

19 (1) recognize and maintain existing statutory  
20 and regulatory authorities, functions and programs  
21 that collect data on greenhouse gas emissions and  
22 effects and that are necessary for the operation of  
23 the National Greenhouse Gas Database;

24 (2) distribute additional responsibilities and ac-  
25 tivities identified by this title to Federal depart-

1       ments or agencies according to their mission and ex-  
2       pertise and to maximize the use of existing re-  
3       sources; and

4           (3) provide for the comprehensive collection and  
5       analysis of data on the emissions related to product  
6       use, including fossil fuel and energy consuming ap-  
7       pliances and vehicles.

8       (b) The Memorandum of Agreement entered into  
9       under subsection (a) shall, at a minimum, retain the fol-  
10      lowing functions for the respective Departments and agen-  
11      cies:

12           (1) The Department of Energy shall be pri-  
13      marily responsible for developing, maintaining, and  
14      verifying the emissions reduction registry, under  
15      both this title and its authority under section  
16      1605(b) of the Energy Policy Act of 1992 (42  
17      U.S.C. 13385(b)).

18           (2) The Department of Commerce shall be pri-  
19      marily responsible for the development of measure-  
20      ment standards for emissions monitoring and  
21      verification technologies and methods to ensure that  
22      there is a consistent and technically accurate record  
23      of emissions, reductions and atmospheric concentra-  
24      tions of greenhouse gases for the database under  
25      this title.

1           (3) The Environmental Protection Agency shall  
2       be primarily responsible for emissions monitoring,  
3       measurement, verification and data collection, pursu-  
4       ant to this title and existing authority under Titles  
5       IV and VIII of the Clean Air Act, and including mo-  
6       bile source emissions information from implementa-  
7       tion of the Corporate Average Fuel Economy pro-  
8       gram (49 U.S.C. Chapter 329), and the Agency's  
9       role in completing the national inventory for compli-  
10      ance with the United Nations Framework Conven-  
11      tion on Climate Change.

12       (c) The Chairman shall publish a draft version of the  
13      Memorandum of Agreement in the Federal Register and  
14      solicit comments on it as soon as practicable and publish  
15      the final Memorandum of Agreement in the Federal Reg-  
16      ister not later than 15 months after the date of enactment  
17      of this title.

18       (d) The final Memorandum of Agreement shall not  
19      be subject to judicial review.

20      **SEC. 1104. NATIONAL GREENHOUSE GAS DATABASE.**

21       (a) ESTABLISHMENT.—The Designated Agency or  
22      Agencies, working in consultation with the private sector  
23      and nongovernmental organizations, shall establish, oper-  
24      ate and maintain a database to be known as the National

1 Greenhouse Gas Database to collect, verify, and analyze  
2 information on—

3 (1) greenhouse gas emissions by entities located  
4 in the United States; and

5 (2) greenhouse gas emission reductions by enti-  
6 ties based in the United States.

7 (b) NATIONAL GREENHOUSE GAS DATABASE COM-  
8 PONENTS.—The database shall consist of an inventory of  
9 greenhouse gas emissions and a registry of greenhouse gas  
10 emissions reductions.

11 (c) DEADLINE.—Not later than 2 years after the date  
12 of enactment of this title, the Designated Agency or Agen-  
13 cies shall promulgate a rule to implement a comprehensive  
14 system for greenhouse gas emissions reporting,  
15 inventorying and reductions registration. The Designated  
16 Agency or Agencies shall ensure that the system is de-  
17 signed to maximize completeness, transparency, and accu-  
18 racy and to minimize measurement and reporting costs for  
19 covered entities.

20 (d) REQUIRED ELEMENTS OF DATABASE REPORTING  
21 SYSTEM.—

22 (1) MANDATORY REPORTING.—

23 (A) Beginning one year after promulgation  
24 of the final rule issued under subsection (c),  
25 each entity that exceeds the greenhouse gas

1 emissions threshold in paragraph (2) shall re-  
2 port annually to the Designated Agency or  
3 Agencies, for inclusion in the National Green-  
4 house Gas Database, the entity-wide emissions  
5 of greenhouse gases in the previous calendar  
6 year. Such reports are due annually to the Des-  
7 ignated Agency or Agencies, but must be sub-  
8 mitted no later than April 30 of each calendar  
9 year in support of the previous years' emission  
10 reporting requirements.

11 (B) Each report submitted shall include—

12 (i) direct emissions from stationary  
13 sources;

14 (ii) direct emissions from vehicles  
15 owned or controlled by a covered entity;

16 (iii) direct emissions from any land  
17 use activities that release significant quan-  
18 tities of greenhouse gases;

19 (iv) indirect emissions from all  
20 outsourced activities, contract manufac-  
21 turing, wastes transferred from the control  
22 of an entity, and other relevant instances,  
23 as determined to be practicable under the  
24 rule;

1 (v) indirect emissions from electricity,  
2 heat, and steam imported from another en-  
3 tity, as determined to be practicable under  
4 the rule;

5 (vi) the production, distribution or im-  
6 port of greenhouse gases listed under sec-  
7 tion 1102 by an entity; and

8 (vii) such other categories, which the  
9 designated Agency or Agencies determine  
10 by rule, after public notice and comment,  
11 should be included to accomplish the pur-  
12 poses of this title.

13 (C) Each report shall include total mass  
14 quantities for each greenhouse gas emitted, and  
15 in terms of carbon dioxide equivalent.

16 (D) Each report shall include the green-  
17 house gas emissions per unit of output by an  
18 entity, such as tons of carbon dioxide per kilo-  
19 watt-hour or a similar metric.

20 (E) The first report shall be required to be  
21 submitted not later than April 30 of the fourth  
22 year after the date of enactment of this title.

23 (2) THRESHOLD FOR REPORTING.—

24 (A) An entity shall not be required to  
25 make a report under paragraph (1) unless—



1 (i) the total greenhouse gas emissions  
2 of at least one facility owned by an entity  
3 in the calendar year for reporting exceeds  
4 10,000 metric tons of carbon dioxide equiv-  
5 alent, or a greater level as determined by  
6 rule; or

7 (ii) the total quantity of greenhouse  
8 gases produced, distributed or imported by  
9 the entity exceeds 10,000 metric tons of  
10 carbon dioxide equivalent, or a greater  
11 level as determined by rule.

12 (B) the final rule promulgated under sec-  
13 tion 1104(c) and subsequent revisions to that  
14 rule with respect to the threshold for reporting  
15 in subparagraph (A) shall capture information  
16 on no less than 75 percent of greenhouse gas  
17 emissions from entities.

18 (3) METHOD OF REPORTING.—Entity-wide  
19 emissions shall be reported at the facility level.

20 (4) ADDITIONAL VOLUNTARY REPORTING.—An  
21 entity may voluntarily report to the Designated  
22 Agency or Agencies, for inclusion in the registry por-  
23 tion of the national database—

1 (A) with respect to the preceding calendar  
2 year and any greenhouse gas emitted by the  
3 entity—

4 (i) project reductions from facilities  
5 owned or controlled by the reporting entity  
6 in the United States;

7 (ii) transfers of project reductions to  
8 and from any other entity;

9 (iii) project reductions and transfers  
10 of project reductions outside the United  
11 States;

12 (iv) other indirect emissions that are  
13 not required to be reported under sub-  
14 section (d); and

15 (v) product use phase emissions; and

16 (B) with respect to greenhouse gas emis-  
17 sions reductions activities carried out since  
18 1990 and verified according to rules imple-  
19 menting subparagraph (6) of this subsection  
20 and submitted to the Designated Agency or  
21 Agencies before the date that is three years  
22 after the date of enactment of this title, those  
23 reductions that have been reported or submitted  
24 by an entity under section 1605(b) of the En-  
25 ergy Policy Act of 1992 (42 U.S.C. 13385(b))

1 or under other Federal or State voluntary  
2 greenhouse gas reduction programs.

3 (5) TYPES OF ACTIVITIES.—Under paragraph  
4 (4), an entity may report projects that reduce green-  
5 house gas emissions or sequester a greenhouse gas,  
6 including—

7 (A) fuel switching;

8 (B) energy efficiency improvements;

9 (C) use of renewable energy;

10 (D) use of combined heat and power sys-  
11 tems;

12 (E) management of cropland, grassland,  
13 and grazing land;

14 (F) forestry activities that increase forest  
15 carbon stocks or reduce forest carbon emissions;

16 (G) carbon capture and storage;

17 (H) methane recovery; and

18 (I) greenhouse gas offset investments.

19 (6) PROVISION OF VERIFICATION INFORMATION  
20 BY REPORTING ENTITIES.—Each reporting entity  
21 shall provide information sufficient for the Des-  
22 ignated Agency or Agencies to verify, in accordance  
23 with measurement and verification criteria developed  
24 under Section 1106, that the greenhouse gas report  
25 of the reporting entity—

1 (A) has been accurately reported; and

2 (B) in the case of each additional vol-  
3 untary report, represents—

4 (i) actual reductions in direct green-  
5 house gas emissions relative to historic  
6 emission levels and net of any related in-  
7 creases in direct emissions, or

8 (ii) actual increases in net sequestra-  
9 tion.

10 (7) INDEPENDENT THIRD-PARTY VERIFICA-  
11 TION.—A reporting entity may—

12 (A) obtain independent third-party  
13 verification; and

14 (B) present the results of the third-party  
15 verification to the Designated Agency or Agen-  
16 cies for consideration by the Designated Agency  
17 or Agencies in carrying out paragraph (1).

18 (8) DATA QUALITY.—The rule under subsection  
19 (c) shall establish procedures and protocols needed  
20 to—

21 (A) prevent the reporting of some or all of  
22 the same greenhouse gas emissions or emission  
23 reductions by more than one reporting entity;

24 (B) provide for corrections to errors in  
25 data submitted to the database;

1 (C) provide for adjustment to data by re-  
2 porting entities that have had a significant or-  
3 ganizational change (including mergers, acquisi-  
4 tions, and divestiture), in order to maintain  
5 comparability among data in the database over  
6 time;

7 (D) provide for adjustments to reflect new  
8 technologies or methods for measuring or calcu-  
9 lating greenhouse gas emissions; and,

10 (E) account for changes in registration of  
11 ownership of emissions reductions resulting  
12 from a voluntary private transaction between  
13 reporting entities.

14 (9) AVAILABILITY OF DATA.—The Designated  
15 Agency or Agencies shall ensure that information in  
16 the database is published, accessible to the public,  
17 and made available in electronic format on the Inter-  
18 net, except in cases where the Designated Agency or  
19 Agencies determine that publishing or making avail-  
20 able the information would disclose information vital  
21 to national security.

22 (10) DATA INFRASTRUCTURE.—The Designated  
23 Agency or Agencies shall ensure that the database  
24 established by this Act shall utilize and is integrated  
25 with existing Federal, regional, and state greenhouse

1 gas data collection and reporting systems to the  
2 maximum extent possible and avoid duplication of  
3 such systems.

4 (11) ADDITIONAL ISSUES TO BE CONSID-  
5 ERED.—In promulgating the rules for and imple-  
6 menting the Database, the Designated Agency or  
7 Agencies shall consider a broad range of issues in-  
8 volved in establishing an effective database, includ-  
9 ing the following:

10 (A) UNITS FOR REPORTING.—The appro-  
11 priate units for reporting each greenhouse gas,  
12 and whether to require reporting of emission ef-  
13 ficiency rates (including emissions per kilowatt-  
14 hour for electricity generators) in addition to  
15 mass emissions of greenhouse gases,

16 (B) INTERNATIONAL CONSISTENCY.—The  
17 greenhouse gas reduction and sequestration  
18 methods and standards applied in other coun-  
19 tries, as applicable or relevant; and

20 (C) DATA SUFFICIENCY.—The extent to  
21 which available fossil fuels, greenhouse gas  
22 emissions, and greenhouse gas production and  
23 importation data are adequate to implement a  
24 comprehensive National Greenhouse Gas Data-  
25 base.

1 (e) ENFORCEMENT.—The Attorney General may, at  
2 the request of the Designated Agency or Agencies, bring  
3 a civil action in United States District Court against an  
4 entity that fails to comply with reporting requirements  
5 under this section, to impose a civil penalty of not more  
6 than \$25,000 for each day that the failure to comply con-  
7 tinues.

8 (f) ANNUAL REPORT.—The Designated Agency or  
9 Agencies shall publish an annual report that—

10 (1) describes the total greenhouse gas emissions  
11 and emission reductions reported to the database;

12 (2) provides entity-by-entity and sector-by-sec-  
13 tor analyses of the emissions and emission reduc-  
14 tions reported, and

15 (3) describes the atmospheric concentrations of  
16 greenhouse gases and tracks such information over  
17 time.

18 **SEC. 1105. REPORT ON STATUTORY CHANGES AND HARMO-**  
19 **NIZATION.**

20 Not later than 3 years after the date of enactment  
21 of this title, the President shall submit to Congress a re-  
22 port identifying any changes needed to this title or to  
23 other provisions of law to improve the accuracy or oper-  
24 ation of the Greenhouse Gas Database and related pro-  
25 grams under this title.

1 **SEC. 1106. MEASUREMENT AND VERIFICATION.**

2       The Designated Agency or Agencies shall, not later  
3 than 1 year after the date of enactment of this title, design  
4 and develop comprehensive measurement and verification  
5 methods and standards to ensure a consistent and tech-  
6 nically accurate record of greenhouse gas emissions, re-  
7 ductions, and atmospheric concentrations for use in the  
8 national greenhouse gas database. The Agency or Agen-  
9 cies shall periodically review and revise these methods and  
10 standards as necessary.

11 **SEC. 1107. INDEPENDENT REVIEW.**

12       (a) The General Accounting Office shall submit a re-  
13 port to Congress five years after the date of enactment  
14 of this title, and every three years thereafter, providing  
15 a review of the efficacy of the implementation and oper-  
16 ation of the National Greenhouse Gas Database estab-  
17 lished in section 1104 and making recommendations for  
18 improvements to the programs created pursuant to this  
19 title and changes to the law that will achieve a consistent  
20 and technically accurate record of greenhouse gas emis-  
21 sions, reductions, and atmospheric concentrations and the  
22 other purposes of this title.

23       (b) The Designated Agency or Agencies shall enter  
24 into an agreement with the National Academy of Sciences  
25 to review the scientific methods, assumptions and stand-  
26 ards used by the Agency or Agencies implementing this



1 title, and to report to Congress not later than four years  
2 after the date of enactment of this title with recommenda-  
3 tions for improving those methods and standards or re-  
4 lated elements of the programs or structure of the report-  
5 ing and registry system established by this title.

6 **SEC. 1108. AUTHORIZATION OF APPROPRIATIONS.**

7       There is authorized to be appropriated such sums as  
8 are necessary to carry out the activities and programs in-  
9 cluded in this title.

10 **DIVISION E—ENHANCING RE-**  
11 **SEARCH, DEVELOPMENT, AND**  
12 **TRAINING**

13 **TITLE XII—ENERGY RESEARCH**  
14 **AND DEVELOPMENT PROGRAMS**

15 **SEC. 1201. SHORT TITLE.**

16       This division may be cited as the “Energy Science  
17 and Technology Enhancement Act of 2002”.

18 **SEC. 1202. FINDINGS.**

19       The Congress finds the following:

20           (1) A coherent national energy strategy re-  
21 quires an energy research and development program  
22 that supports basic energy research and provides  
23 mechanisms to develop, demonstrate, and deploy new  
24 energy technologies in partnership with industry.

1           (2) An aggressive national energy research, de-  
2           velopment, demonstration, and technology deploy-  
3           ment program is an integral part of a national cli-  
4           mate change strategy, because it can reduce—

5                   (A) United States energy intensity by 1.9  
6                   percent per year from 1999 to 2020;

7                   (B) United States energy consumption in  
8                   2020 by 8 quadrillion Btu from otherwise ex-  
9                   pected levels; and

10                  (C) United States carbon dioxide emissions  
11                  from expected levels by 166 million metric tons  
12                  in carbon equivalent in 2020.

13           (3) An aggressive national energy research, de-  
14           velopment, demonstration, and technology deploy-  
15           ment program can help maintain domestic United  
16           States production of energy, increase United States  
17           hydrocarbon reserves by 14 percent, and lower nat-  
18           ural gas prices by 20 percent, compared to estimates  
19           for 2020.

20           (4) An aggressive national energy research, de-  
21           velopment, demonstration, and technology deploy-  
22           ment program is needed if United States suppliers  
23           and manufacturers are to compete in future markets  
24           for advanced energy technologies.

1 **SEC. 1203. DEFINITIONS.**

2 In this title:

3 (1) DEPARTMENT.—The term “Department”  
4 means the Department of Energy.

5 (2) DEPARTMENTAL MISSION.—The term “de-  
6 partmental mission” means any of the functions  
7 vested in the Secretary of Energy by the Depart-  
8 ment of Energy Organization Act (42 U.S.C. 7101  
9 et seq.) or other law.

10 (3) INSTITUTION OF HIGHER EDUCATION.—The  
11 term “institution of higher education” has the  
12 meaning given that term in section 1201(a) of the  
13 Higher Education Act of 1965 (20 U.S.C. 1141(a));

14 (4) NATIONAL LABORATORY.—The term “Na-  
15 tional Laboratory” means any of the following multi-  
16 purpose laboratories owned by the Department of  
17 Energy—

18 (A) Argonne National Laboratory;

19 (B) Brookhaven National Laboratory;

20 (C) Idaho National Engineering and Envi-  
21 ronmental Laboratory;

22 (D) Lawrence Berkeley National Labora-  
23 tory;

24 (E) Lawrence Livermore National Labora-  
25 tory;

26 (F) Los Alamos National Laboratory;

1 (G) National Energy Technology Labora-  
2 tory;

3 (H) National Renewable Energy Labora-  
4 tory;

5 (I) Oak Ridge National Laboratory;

6 (J) Pacific Northwest National Labora-  
7 tory; or

8 (K) Sandia National Laboratory.

9 (5) SECRETARY.—The term “Secretary”  
10 means the Secretary of Energy.

11 (6) TECHNOLOGY DEPLOYMENT.—The term  
12 “technology deployment” means activities to pro-  
13 mote acceptance and utilization of technologies in  
14 commercial application, including activities under-  
15 taken pursuant to section 7 of the Federal Non-  
16 nuclear Energy Research and Development Act of  
17 1974 (42 U.S.C. 5906) or section 6 of the Renew-  
18 able Energy and Energy Efficiency Technology  
19 Competitiveness Act of 1989 (42 U.S.C. 12007).

20 **SEC. 1204. CONSTRUCTION WITH OTHER LAWS.**

21 Except as otherwise provided in this title and title  
22 XIV, the Secretary shall carry out the research, develop-  
23 ment, demonstration, and technology deployment pro-  
24 grams authorized by this title in accordance with the  
25 Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), the

1 Federal Nonnuclear Research and Development Act of  
2 1974 (42 U.S.C. 5901 et seq.), the Energy Policy Act of  
3 1992 (42 U.S.C. 13201 et seq.), or any other Act under  
4 which the Secretary is authorized to carry out such activi-  
5 ties.

## 6 **Subtitle A—Energy Efficiency**

### 7 **SEC. 1211. ENHANCED ENERGY EFFICIENCY RESEARCH** 8 **AND DEVELOPMENT.**

9 (a) PROGRAM DIRECTION.—The Secretary shall con-  
10 duct balanced energy research, development, demonstra-  
11 tion, and technology deployment programs to enhance en-  
12 ergy efficiency in buildings, industry, power technologies,  
13 and transportation.

14 (b) PROGRAM GOALS.—

15 (1) ENERGY-EFFICIENT HOUSING.—The goal of  
16 the energy-efficient housing program shall be to de-  
17 velop, in partnership with industry, enabling tech-  
18 nologies (including lighting technologies), designs,  
19 production methods, and supporting activities that  
20 will, by 2010—

21 (A) cut the energy use of new housing by  
22 50 percent, and

23 (B) reduce energy use in existing homes by  
24 30 percent.

1           (2) INDUSTRIAL ENERGY EFFICIENCY.—The  
2       goal of the industrial energy efficiency program shall  
3       be to develop, in partnership with industry, enabling  
4       technologies, designs, production methods, and sup-  
5       porting activities that will, by 2010, enable energy-  
6       intensive industries such as the following industries  
7       to reduce their energy intensity by at least 25 per-  
8       cent:

9           (A) the wood product manufacturing in-  
10       dustry;

11           (B) the pulp and paper industry;

12           (C) the petroleum and coal products manu-  
13       facturing industry;

14           (D) the mining industry;

15           (E) the chemical manufacturing industry;

16           (F) the glass and glass product manufac-  
17       turing industry;

18           (G) the iron and steel mills and ferroalloy  
19       manufacturing industry;

20           (H) the primary aluminum production in-  
21       dustry;

22           (I) the foundries industry; and

23           (J) U.S. agriculture.

24       (3) TRANSPORTATION ENERGY EFFICIENCY.—

25       The goal of the transportation energy efficiency pro-

1        gram shall be to develop, in partnership with indus-  
2        try, technologies that will enable the achievement—

3                (A) by 2010, passenger automobiles with a  
4        fuel economy of 80 miles per gallon;

5                (B) by 2010, light trucks (classes 1 and  
6        2a) with a fuel economy of 60 miles per gallon;

7                (C) by 2010, medium trucks and buses  
8        (classes 2b through 6 and class 8 transit buses)  
9        with a fuel economy, in ton-miles per gallon,  
10       that is three times that of year 2000 equivalent  
11       vehicles;

12               (D) by 2010, heavy trucks (classes 7 and  
13       8) with a fuel economy, in ton-miles per gallon,  
14       that is two times that of year 2000 equivalent  
15       vehicles; and

16               (E) by 2015, the production of fuel-cell  
17       powered passenger vehicles with a fuel economy  
18       of 110 miles per gallon.

19        (4) ENERGY EFFICIENT DISTRIBUTED GENERA-  
20       TION.—The goals of the energy efficient on-site gen-  
21       eration program shall be to help remove environ-  
22       mental and regulatory barriers to on-site, or distrib-  
23       uted, generation and combined heat and power by  
24       developing technologies by 2015 that achieve—

1 (A) electricity generating efficiencies great-  
2 er than 40 percent for on-site generation tech-  
3 nologies based upon natural gas, including fuel  
4 cells, microturbines, reciprocating engines and  
5 industrial gas turbines;

6 (B) combined heat and power total (elec-  
7 tric and thermal) efficiencies of more than 85  
8 percent;

9 (C) fuel flexibility to include hydrogen,  
10 biofuels and natural gas;

11 (D) near zero emissions of pollutants that  
12 form smog and acid rain;

13 (E) reduction of carbon dioxide emissions  
14 by at least 40 percent;

15 (F) packaged system integration at end  
16 user facilities providing complete services in  
17 heating, cooling, electricity and air quality; and

18 (G) increased reliability for the consumer  
19 and greater stability for the national electricity  
20 grid.

21 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
22 are authorized to be appropriated to the Secretary for car-  
23 rying out research, development, demonstration, and tech-  
24 nology deployment activities under this subtitle—

25 (1) \$700,000,000 for fiscal year 2003;



1           (2) \$784,000,000 for fiscal year 2004;

2           (3) \$878,000,000 for fiscal year 2005; and

3           (4) \$983,000,000 for fiscal year 2006.

4           (d) LIMITATION ON USE OF FUNDS.—None of the  
5 funds authorized to be appropriated in subsection (c) may  
6 be used for the following programs of the Department—

7           (1) Weatherization Assistance Program;

8           (2) State Energy Program; or

9           (3) Federal Energy Management Program.

10 **SEC. 1212. ENERGY EFFICIENCY SCIENCE INITIATIVE.**

11           (a) ESTABLISHMENT AND AUTHORIZATION OF AP-  
12 PROPRIATIONS.—From amounts authorized under section  
13 1211(c), there are authorized to be appropriated not more  
14 than \$50,000,000 in any fiscal year, for an Energy Effi-  
15 ciency Science Initiative to be managed by the Assistant  
16 Secretary in the Department with responsibility for energy  
17 conservation under section 203(a)(9) of the Department  
18 of Energy Organization Act (42 U.S.C. 7133(a)(9)), in  
19 consultation with the Director of the Office of Science, for  
20 grants to be competitively awarded and subject to peer re-  
21 view for research relating to energy efficiency.

22           (b) REPORT.—The Secretary of Energy shall submit  
23 to the Committee on Science and the Committee on Ap-  
24 propriations of the United States House of Representa-  
25 tives, and to the Committee on Energy and Natural Re-

1 sources and the Committee on Appropriations of the  
2 United States Senate, an annual report on the activities  
3 of the Energy Efficiency Science Initiative, including a de-  
4 scription of the process used to award the funds and an  
5 explanation of how the research relates to energy effi-  
6 ciency.

7 **SEC. 1213. NEXT GENERATION LIGHTING INITIATIVE.**

8 (a) ESTABLISHMENT.—There is established in the  
9 Department a Next Generation Lighting Initiative to re-  
10 search, develop, and conduct demonstration activities on  
11 advanced solid-state lighting technologies based on white  
12 light emitting diodes.

13 (b) OBJECTIVES.—

14 (1) IN GENERAL.—The objectives of the initia-  
15 tive shall be to develop, by 2011, advanced solid-  
16 state lighting technologies based on white light emit-  
17 ting diodes that, compared to incandescent and fluo-  
18 rescent lighting technologies, are—

19 (A) longer lasting;

20 (B) more energy-efficient; and

21 (C) cost-competitive.

22 (2) INORGANIC WHITE LIGHT EMITTING  
23 DIODE.—The objective of the initiative with respect  
24 to inorganic white light emitting diodes shall be to  
25 develop an inorganic white light emitting diode that

1 has an efficiency of 160 lumens per watt and a 10–  
2 year lifetime.

3 (3) ORGANIC WHITE LIGHT EMITTING DIODE.—

4 The objective of the initiative with respect to organic  
5 white light emitting diodes shall be to develop an or-  
6 ganic white light emitting diode with an efficiency of  
7 100 lumens per watt with a 5-year lifetime that—

8 (A) illuminates over a full color spectrum;

9 (B) covers large areas over flexible sur-  
10 faces; and

11 (C) does not contain harmful pollutants  
12 typical of fluorescent lamps such as mercury.

13 (c) CONSORTIUM.—

14 (1) IN GENERAL.—The Secretary shall initiate  
15 and manage basic and manufacturing-related re-  
16 search on advanced solid-state lighting technologies  
17 based on white light emitting diodes for the initia-  
18 tive, in cooperation with the Next Generation Light-  
19 ing Initiative Consortium.

20 (2) COMPOSITION.—The consortium shall be  
21 composed of firms, national laboratories, and other  
22 entities so that the consortium is representative of  
23 the United States solid state lighting research, devel-  
24 opment, and manufacturing expertise as a whole.

1           (3) FUNDING.—The consortium shall be funded  
2    by—

3                   (A) participation fees; and

4                   (B) grants provided under subsection  
5           (e)(1).

6           (4) ELIGIBILITY.—To be eligible to receive a  
7    grant under subsection (e)(1), the consortium  
8    shall—

9                   (A) enter into a consortium participation  
10   agreement that—

11                          (i) is agreed to by all participants;

12                          and

13                          (ii) describes the responsibilities of  
14           participants, participation fees, and the  
15           scope of research activities; and

16                   (B) develop an annual program plan.

17           (5) INTELLECTUAL PROPERTY.—Participants in  
18   the consortium shall have royalty-free nonexclusive  
19   rights to use intellectual property derived from con-  
20   sortium research conducted under subsection (e)(1).

21   (d) PLANNING BOARD.—

22           (1) IN GENERAL.—Not later than 90 days after  
23   the establishment of the consortium, the Secretary  
24   shall establish and appoint the members of a plan-  
25   ning board, to be known as the “Next Generation

1       Lighting Initiative Planning Board”, to assist the  
2       Secretary in carrying out this section.

3           (2) COMPOSITION.—The planning board shall  
4       be composed of—

5           (A) 4 members from universities, national  
6       laboratories, and other individuals with exper-  
7       tise in advanced solid-state lighting and tech-  
8       nologies based on white light emitting diodes;  
9       and

10          (B) 3 members from a list of not less than  
11       6 nominees from industry submitted by the con-  
12       sortium.

13          (3) STUDY.—

14           (A) IN GENERAL.—Not later than 90 days  
15       after the date on which the Secretary appoints  
16       members to the planning board, the planning  
17       board shall complete a study on strategies for  
18       the development and implementation of ad-  
19       vanced solid-state lighting technologies based on  
20       white light emitting diodes.

21           (B) REQUIREMENTS.—The study shall de-  
22       velop a comprehensive strategy to implement,  
23       through the initiative, the use of white light  
24       emitting diodes to increase energy efficiency  
25       and enhance United States competitiveness.

1 (C) IMPLEMENTATION.—As soon as prac-  
2 ticable after the study is submitted to the Sec-  
3 retary, the Secretary shall implement the initia-  
4 tive in accordance with the recommendations of  
5 the planning board.

6 (4) TERMINATION.—The planning board shall  
7 terminate upon completion of the study under para-  
8 graph (3).

9 (e) GRANTS.—

10 (1) FUNDAMENTAL RESEARCH.—The Secretary,  
11 through the consortium, shall make grants to con-  
12 duct basic and manufacturing-related research re-  
13 lated to advanced solid-state lighting technologies  
14 based on white light emitting diode technologies.

15 (2) TECHNOLOGY DEVELOPMENT AND DEM-  
16 ONSTRATION.—The Secretary shall enter into  
17 grants, contracts, and cooperative agreements to  
18 conduct or promote technology research, develop-  
19 ment, or demonstration activities. In providing fund-  
20 ing under this paragraph, the Secretary shall give  
21 preference to participants in the consortium.

22 (3) CONTINUING ASSESSMENT.—The consor-  
23 tium, in collaboration with the Secretary, shall for-  
24 mulate annual operating and performance objectives,  
25 develop technology roadmaps, and recommend re-

1 search and development priorities for the initiative.  
2 The Secretary may also establish or utilize advisory  
3 committees, or enter into appropriate arrangements  
4 with the National Academy of Sciences, to conduct  
5 periodic reviews of the initiative. The Secretary shall  
6 consider the results of such assessment and review  
7 activities in making funding decisions under para-  
8 graphs (1) and (2) of this subsection.

9 (4) TECHNICAL ASSISTANCE.—The National  
10 Laboratories shall cooperate with and provide tech-  
11 nical assistance to persons carrying out projects  
12 under the initiative.

13 (5) AUDITS.—

14 (A) IN GENERAL.—The Secretary shall re-  
15 tain an independent, commercial auditor to de-  
16 termine the extent to which funds made avail-  
17 able under this section have been expended in  
18 a manner that is consistent with the objectives  
19 under subsection (b) and, in the case of funds  
20 made available to the consortium, the annual  
21 program plan of the consortium under sub-  
22 section (c)(4)(B).

23 (B) REPORTS.—The auditor shall submit  
24 to Congress, the Secretary, and the Comptroller

1           General of the United States an annual report  
2           containing the results of the audit.

3           (6) APPLICABLE LAW.—Grants, contracts, and  
4           cooperative agreements under this section shall not  
5           be subject to the Federal Acquisition Regulation.

6           (f) PROTECTION OF INFORMATION.—Information ob-  
7           tained by the Federal Government on a confidential basis  
8           under this section shall be considered to constitute trade  
9           secrets and commercial or financial information obtained  
10          from a person and privileged or confidential under section  
11          552(b)(4) of title 5, United States Code.

12          (g) AUTHORIZATION OF APPROPRIATIONS.—In addi-  
13          tion to amounts authorized under section 1211(c), there  
14          are authorized to be appropriated for activities under this  
15          section \$50,000,000 for each of fiscal years 2003 through  
16          2011.

17          (h) DEFINITIONS.—In this section:

18               (1) ADVANCED SOLID-STATE LIGHTING.—The  
19               term “advanced solid-state lighting” means a  
20               semiconducting device package and delivery system  
21               that produces white light using externally applied  
22               voltage.

23               (2) CONSORTIUM.—The term “consortium”  
24               means the Next Generation Lighting Initiative Con-  
25               sortium under subsection (c).



1           (3) INITIATIVE.—The term “initiative” means  
2       the Next Generation Lighting Initiative established  
3       under subsection (a).

4           (4) INORGANIC WHITE LIGHT EMITTING  
5       DIODE.—The term “inorganic white light emitting  
6       diode” means an inorganic semiconducting package  
7       that produces white light using externally applied  
8       voltage.

9           (5) ORGANIC WHITE LIGHT EMITTING DIODE.—  
10      The term “organic white light emitting diode”  
11      means an organic semiconducting compound that  
12      produces white light using externally applied voltage.

13          (6) WHITE LIGHT EMITTING DIODE.—The term  
14      “white light emitting diode” means—

15                (A) an inorganic white light emitting  
16                diode; or

17                (B) an organic white light emitting diode.

18   **SEC. 1214. RAILROAD EFFICIENCY.**

19      (a) ESTABLISHMENT.—The Secretary shall, in co-  
20      operation with the Secretaries of Transportation and De-  
21      fense, and the Administrator of the Environmental Protec-  
22      tion Agency, establish a public-private research partner-  
23      ship involving the federal government, railroad carriers,  
24      locomotive manufacturers, and the Association of Amer-  
25      ican Railroads. The goal of the initiative shall include de-

1 veloping and demonstrating locomotive technologies that  
2 increase fuel economy, reduce emissions, improve safety,  
3 and lower costs.

4 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
5 are authorized to be appropriated to carry out the require-  
6 ments of this section \$60,000,000 for fiscal year 2003 and  
7 \$70,000,000 for fiscal year 2004.

## 8 **Subtitle B—Renewable Energy**

### 9 **SEC. 1221. ENHANCED RENEWABLE ENERGY RESEARCH** 10 **AND DEVELOPMENT.**

11 (a) PROGRAM DIRECTION.—The Secretary shall con-  
12 duct balanced energy research, development, demonstra-  
13 tion, and technology deployment programs to enhance the  
14 use of renewable energy.

15 (b) PROGRAM GOALS.—

16 (1) WIND POWER.—The goals of the wind  
17 power program shall be to develop, in partnership  
18 with industry, a variety of advanced wind turbine  
19 designs and manufacturing technologies that are  
20 cost-competitive with fossil-fuel generated electricity,  
21 with a focus on developing advanced low wind speed  
22 technologies that, by 2007, will enable the expanding  
23 utilization of widespread class 3 and 4 winds.

24 (2) PHOTOVOLTAICS.—The goal of the photo-  
25 voltaic program shall be to develop, in partnership

1 with industry, total photovoltaic systems with in-  
2 stalled costs of \$4000 per peak kilowatt by 2005  
3 and \$2000 per peak kilowatt by 2015.

4 (3) SOLAR THERMAL ELECTRIC SYSTEMS.—The  
5 goal of the solar thermal electric systems program  
6 shall be to develop, in partnership with industry,  
7 solar power technologies (including baseload solar  
8 power) that are competitive with fossil-fuel gen-  
9 erated electricity by 2015, by combining high-effi-  
10 ciency and high-temperature receivers with advanced  
11 thermal storage and power cycles.

12 (4) BIOMASS-BASED POWER SYSTEMS.—The  
13 goal of the biomass program shall be to develop, in  
14 partnership with industry, integrated power-gener-  
15 ating systems, advanced conversion, and feedstock  
16 technologies capable of producing electric power that  
17 is cost-competitive with fossil-fuel generated elec-  
18 tricity by 2010, together with the production of  
19 fuels, chemicals, and other products under para-  
20 graph (6).

21 (5) GEOTHERMAL ENERGY.—The goal of the  
22 geothermal program shall be to develop, in partner-  
23 ship with industry, technologies and processes based  
24 on advanced hydrothermal systems and advanced

1 heat and power systems, including geothermal heat  
2 pump technology, with a specific focus on—

3 (A) improving exploration and character-  
4 ization technology to increase the probability of  
5 drilling successful wells from 20 percent to 40  
6 percent by 2006;

7 (B) reducing the cost of drilling by 2008  
8 to an average cost of \$150 per foot; and

9 (C) developing enhanced geothermal sys-  
10 tems technology with the potential to double the  
11 useable geothermal resource base.

12 (6) BIOFUELS.—The goal of the biofuels pro-  
13 gram shall be to develop, in partnership with indus-  
14 try, advanced biochemical and thermochemical con-  
15 version technologies capable of making liquid and  
16 gaseous fuels from cellulosic feedstocks, that are  
17 price-competitive with gasoline or diesel, in either in-  
18 ternal combustion engines or fuel cell vehicles, by  
19 2010.

20 (7) HYDROGEN-BASED ENERGY SYSTEMS.—The  
21 goals of the hydrogen program shall be to support  
22 research and development on technologies for pro-  
23 duction, storage, and use of hydrogen, including fuel  
24 cells and, specifically, fuel-cell vehicle development  
25 activities under section 1211.

1           (8) HYDROPOWER.—The goal of the hydro-  
2       power program shall be to develop, in partnership  
3       with industry, a new generation of turbine tech-  
4       nologies that are less damaging to fish and aquatic  
5       ecosystems.

6           (9) ELECTRIC ENERGY SYSTEMS AND STOR-  
7       AGE.—The goals of the electric energy and storage  
8       program shall be to develop, in partnership with  
9       industry—

10           (A) generators and transmission, distribu-  
11       tion, and storage systems that combine high ca-  
12       pacity with high efficiency;

13           (B) technologies to interconnect distributed  
14       energy resources with electric power systems,  
15       comply with any national interconnection stand-  
16       ards, have a minimum 10-year useful life;

17           (C) advanced technologies to increase the  
18       average efficiency of electric transmission facili-  
19       ties in rural and remote areas, giving priority  
20       for demonstrations to advanced transmission  
21       technologies that are being or have been field  
22       tested;

23           (D) the use of new transmission tech-  
24       nologies, including composite conductor mate-  
25       rials, advanced protection devices, controllers,

1 and other cost-effective methods and tech-  
2 nologies;

3 (E) the use of superconducting materials  
4 in power delivery equipment such as trans-  
5 mission and distribution cables, transformers,  
6 and generators;

7 (F) energy management technologies for  
8 enterprises with aggregated loads and distrib-  
9 uted generation, such as power parks;

10 (G) economic and system models to meas-  
11 ure the costs and benefits of improved system  
12 performance;

13 (H) hybrid distributed energy systems to  
14 optimize two or more distributed or on-site gen-  
15 eration technologies; and

16 (I) real-time transmission and distribution  
17 system control technologies that provide for  
18 continual exchange of information between gen-  
19 eration, transmission, distribution, and end-user  
20 facilities.

21 (c) SPECIAL PROJECTS.—In carrying out this sec-  
22 tion, the Secretary shall demonstrate—

23 (1) the use of advanced wind power technology,  
24 biomass, geothermal energy systems, and other re-

1       newable energy technologies to assist in delivering  
2       electricity to rural and remote locations; and

3               (2) the combined use of wind power and coal  
4       gasification technologies.

5       (d) FINANCIAL ASSISTANCE TO RURAL AREAS.—In  
6       carrying out special projects under subsection (c), the Sec-  
7       retary may provide financial assistance to rural electric  
8       cooperatives and other rural entities.

9       (e) AUTHORIZATION OF APPROPRIATIONS.—There  
10      are authorized to be appropriated to the Secretary for car-  
11      rying out research, development, demonstration, and tech-  
12      nology deployment activities under this subtitle—

13               (1) \$500,000,000 for fiscal year 2003;

14               (2) \$595,000,000 for fiscal year 2004;

15               (3) \$683,000,000 for fiscal year 2005; and

16               (4) \$733,000,000 for fiscal year 2006.

17   **SEC. 1222. BIOENERGY PROGRAMS.**

18       (a) PROGRAM DIRECTION.—The Secretary shall  
19      carry out research, development, demonstration, and tech-  
20      nology development activities related to bioenergy, includ-  
21      ing programs under paragraphs (4) and (6) of section  
22      1221(b).

23       (b) AUTHORIZATION OF APPROPRIATIONS.—

24               (1) BIOPOWER ENERGY SYSTEMS.—From  
25      amounts authorized under section 1221(e), there are

1 authorized to be appropriated to the Secretary for  
2 biopower energy systems—

3 (A) \$60,300,000 for fiscal year 2003;

4 (B) \$69,300,000 for fiscal year 2004;

5 (C) \$79,600,000 for fiscal year 2005; and

6 (D) \$86,250,000 for fiscal year 2006.

7 (2) BIOFUELS ENERGY SYSTEMS.—From  
8 amounts authorized under section 1221(e), there are  
9 authorized to be appropriated to the Secretary for  
10 biofuels energy systems—

11 (A) \$57,500,000 for fiscal year 2003;

12 (B) \$66,125,000 for fiscal year 2004;

13 (C) \$76,000,000 for fiscal year 2005; and

14 (D) \$81,400,000 for fiscal year 2006.

15 (3) INTEGRATED BIOENERGY RESEARCH AND  
16 DEVELOPMENT.—The Secretary may use funds au-  
17 thorized under paragraph (1) or (2) for programs,  
18 projects, or activities that integrate applications for  
19 both biopower and biofuels, including cross-cutting  
20 research and development in feedstocks and eco-  
21 nomic analysis.

22 **SEC. 1223. HYDROGEN RESEARCH AND DEVELOPMENT.**

23 (a) SHORT TITLE.—This section may be cited as the  
24 “Hydrogen Future Act of 2002”.



1       (b) PURPOSES.—Section 102(b) of the Spark M.  
2 Matsunaga Hydrogen Research, Development, and Dem-  
3 onstration Act of 1990 (42 U.S.C. 12401(b)) is amended  
4 by striking paragraphs (2) and (3) and inserting the fol-  
5 lowing:

6           “(2) to direct the Secretary to develop a pro-  
7 gram of technology assessment, information trans-  
8 fer, and education in which Federal agencies, mem-  
9 bers of the transportation, energy, and other indus-  
10 tries, and other entities may participate;

11          “(3) to develop methods of hydrogen production  
12 that minimize production of greenhouse gases, in-  
13 cluding developing—

14           “(A) efficient production from non-renew-  
15 able resources; and

16           “(B) cost-effective production from renew-  
17 able resources such as biomass, geothermal,  
18 wind, and solar energy; and

19          “(4) to foster the use of hydrogen as a major  
20 energy source, including developing the use of hydro-  
21 gen in—

22           “(A) isolated villages, islands, and commu-  
23 nities in which other energy sources are not  
24 available or are very expensive; and

1           “(B) foreign economic development, to  
2           avoid environmental damage from increased fos-  
3           sil fuel use.”.

4           (c) REPORT TO CONGRESS.—Section 103 of the  
5   Spark M. Matsunaga Hydrogen Research, Development,  
6   and Demonstration Act of 1990 (42 U.S.C. 12402) is  
7   amended—

8           (1) in subsection (a), by striking “January 1,  
9           1999,” and inserting “1 year after the date of enact-  
10          ment of the Hydrogen Future Act of 2002, and bi-  
11          ennially thereafter,”;

12          (2) in subsection (b), by striking paragraphs  
13          (1) and (2) and inserting the following:

14           “(1) an analysis of hydrogen-related activities  
15          throughout the United States Government to iden-  
16          tify productive areas for increased intragovernmental  
17          collaboration;

18           “(2) recommendations of the Hydrogen Tech-  
19          nical Advisory Panel established by section 108 for  
20          any improvements in the program that are needed,  
21          including recommendations for additional legislation;  
22          and

23           “(3) to the extent practicable, an analysis of  
24          State and local hydrogen-related activities.”; and

25          (3) by adding at the end the following:

1       “(c) COORDINATION PLAN.—The report under sub-  
2 section (a) shall be based on a comprehensive coordination  
3 plan for hydrogen energy prepared by the Secretary in  
4 consultation with other Federal agencies.”.

5       (d) HYDROGEN RESEARCH AND DEVELOPMENT.—  
6 Section 104 of the Spark M. Matsunaga Hydrogen Re-  
7 search, Development, and Demonstration Act of 1990 (42  
8 U.S.C. 12403) is amended—

9           (1) in subsection (b)(1), by striking “market-  
10 place;” and inserting “marketplace, including foreign  
11 markets, particularly where an energy infrastructure  
12 is not well developed;”;

13           (2) in subsection (e), by striking “this chapter”  
14 and inserting “this Act”;

15           (3) by striking subsection (g) and inserting the  
16 following:

17       “(g) COST SHARING.—

18           “(1) INABILITY TO FUND ENTIRE COST.—The  
19 Secretary shall not consider a proposal submitted by  
20 a person from industry unless the proposal contains  
21 a certification that—

22                   “(A) reasonable efforts to obtain non-Fed-  
23 eral funding in the amount necessary to pay  
24 100 percent of the cost of the project have been  
25 made; and

1           “(B) non-Federal funding in that amount  
2           could not reasonably be obtained.

3           “(2) NON-FEDERAL SHARE.—

4           “(A) IN GENERAL.—The Secretary shall  
5           require a commitment from non-Federal  
6           sources of at least 25 percent of the cost of the  
7           project.

8           “(B) REDUCTION OR ELIMINATION.—The  
9           Secretary may reduce or eliminate the cost-  
10          sharing requirement under subparagraph (A)  
11          for the proposed research and development  
12          project, including for technical analyses, eco-  
13          nomic analyses, outreach activities, and edu-  
14          cational programs, if the Secretary determines  
15          that reduction or elimination is necessary to  
16          achieve the objectives of this Act.

17          (4) in subsection (i), by striking “this chapter”  
18          and inserting “this Act”.

19          (e) DEMONSTRATIONS.—Section 105 of the Spark M.  
20          Matsunaga Hydrogen Research, Development, and Dem-  
21          onstration Act of 1990 (42 U.S.C. 12404) is amended by  
22          striking subsection (c) and inserting the following:

23          “(c) NON-FEDERAL SHARE.—

24          “(1) IN GENERAL.—Except as provided in para-  
25          graph (2), the Secretary shall require a commitment

1 from non-Federal sources of at least 50 percent of  
2 the costs directly relating to a demonstration project  
3 under this section.

4 “(2) REDUCTION.—The Secretary may reduce  
5 the non-Federal requirement under paragraph (1) if  
6 the Secretary determines that the reduction is ap-  
7 propriate considering the technological risks involved  
8 in the project and is necessary to meet the objectives  
9 of this Act.”.

10 (f) TECHNOLOGY TRANSFER.—Section 106 of the  
11 Spark M. Matsunaga Hydrogen Research, Development,  
12 and Demonstration Act of 1990 (42 U.S.C. 12405) is  
13 amended—

14 (1) in subsection (a)—

15 (A) in the first sentence—

16 (i) by striking “The Secretary shall  
17 conduct a program designed to accelerate  
18 wider application” and inserting the fol-  
19 lowing:

20 “(1) IN GENERAL.—The Secretary shall con-  
21 duct a program designed to—

22 “(A) accelerate wider application”; and

23 (ii) by striking “private sector” and  
24 inserting “private sector; and

1           “(B) accelerate wider application of hydro-  
2           gen technologies in foreign countries to increase  
3           the global market for the technologies and fos-  
4           ter global economic development without harm-  
5           ful environmental effects.”; and

6           (B) in the second sentence, by striking  
7           “The Secretary” and inserting the following:

8           “(2) ADVICE AND ASSISTANCE.—The Sec-  
9           retary”; and

10          (2) in subsection (b)—

11           (A) in paragraph (2), by redesignating  
12           subparagraphs (A) through (D) as clauses (i)  
13           through (iv), respectively, and indenting appro-  
14           priately;

15           (B) by redesignating paragraphs (1) and  
16           (2) as subparagraphs (A) and (B), respectively,  
17           and indenting appropriately;

18           (C) by striking “The Secretary, in” and in-  
19           serting the following:

20           “(1) IN GENERAL.—The Secretary, in”;

21           (D) by striking “The information” and in-  
22           serting the following:

23           “(2) ACTIVITIES.—The information”; and

24           (E) in paragraph (1) (as designated by  
25           subparagraph (C))—

(i) in subparagraph (A) (as redesignated by subparagraph (B)), by striking “an inventory” and inserting “an update of the inventory”; and

(ii) in subparagraph (B) (as redesignated by subparagraph (B)), by striking “develop” and all that follows through “to improve” and inserting “develop with the National Aeronautics and Space Administration, the Department of Energy, other Federal agencies as appropriate, and industry, an information exchange program to improve”.

(g) TECHNICAL PANEL REVIEW.—

(1) IN GENERAL.—Section 108 of the Spark M. Matsunaga Hydrogen Research, Development, and Demonstration Act of 1990 (42 U.S.C. 12407) is amended—

(A) in subsection (b)—

(i) by striking “(b) MEMBERSHIP.—  
The technical panel shall be appointed”  
and inserting the following:

“(b) MEMBERSHIP.—

1           “(1) IN GENERAL.—The technical panel shall  
2           be comprised of not fewer than 9 nor more than 15  
3           members appointed”;

4                       (ii) by striking the second sentence  
5           and inserting the following:

6           “(2) TERMS.—

7                       “(A) IN GENERAL.—The term of a mem-  
8           ber of the technical panel shall be not more  
9           than 3 years.

10                      “(B) STAGGERED TERMS.—The Secretary  
11           may appoint members of the technical panel in  
12           a manner that allows the terms of the members  
13           serving at any time to expire at spaced intervals  
14           so as to ensure continuity in the functioning of  
15           the technical panel.

16                      “(C) REAPPOINTMENT.—A member of the  
17           technical panel whose term expires may be re-  
18           appointed.”; and

19                      (iii) by striking “The technical panel  
20           shall have a chairman,” and inserting the  
21           following:

22                      “(3) CHAIRPERSON.—The technical panel shall  
23           have a chairperson,”; and

24                      (B) in subsection (d)—



1 (i) in the matter preceding paragraph  
2 (1), by striking “the following items”;

3 (ii) in paragraph (1), by striking  
4 “and” at the end;

5 (iii) in paragraph (2), by striking the  
6 period at the end and inserting “; and”;  
7 and

8 (iv) by adding at the end the fol-  
9 lowing:

10 “(3) the plan developed by the interagency task  
11 force under section 202(b) of the Hydrogen Future  
12 Act of 1996.”.

13 (2) NEW APPOINTMENTS.—Not later than 180  
14 days after the date of enactment of this Act, the  
15 Secretary—

16 (A) shall review the membership composi-  
17 tion of the Hydrogen Technical Advisory Panel;  
18 and

19 (B) may appoint new members consistent  
20 with the amendments made by subsection (a).

21 (h) AUTHORIZATION OF APPROPRIATIONS.—Section  
22 109 of the Spark M. Matsunaga Hydrogen Research, De-  
23 velopment, and Demonstration Act of 1990 (42 U.S.C.  
24 12408) is amended—

25 (1) in paragraph (8), by striking “and”;

1           (2) in paragraph (9), by striking the period and  
2     inserting a semicolon; and

3           (3) by adding at the end the following:

4           “(10) \$65,000,000 for fiscal year 2003;

5           “(11) \$70,000,000 for fiscal year 2004;

6           “(12) \$75,000,000 for fiscal year 2005; and

7           “(13) \$80,000,000 for fiscal year 2006.”.

8     (i) FUEL CELLS.—

9           (1) INTEGRATION OF FUEL CELLS WITH HY-  
10     DROGEN PRODUCTION SYSTEMS.—Section 201 of the  
11     Hydrogen Future Act of 1996 is amended—

12           (A) in subsection (a)—

13                 (i) by striking “(a) Not later than 180  
14                 days after the date of enactment of this  
15                 section, and subject” and inserting “(a) IN  
16                 GENERAL.—Subject”; and

17                 (ii) by striking “with—” and all that  
18                 follows and inserting “into Federal, State,  
19                 and local government facilities for sta-  
20                 tionary and transportation applications.”;

21           (B) in subsection (b), by striking “gas is”  
22     and inserting “basis”;

23           (C) in subsection (c)(2), by striking “sys-  
24     tems described in subsections (a)(1) and  
25     (a)(2)” and inserting “projects proposed”; and

1 (D) by striking subsection (d) and insert-  
2 ing the following:

3 “(d) NON-FEDERAL SHARE.—

4 “(1) IN GENERAL.—Except as provided in para-  
5 graph (2), the Secretary shall require a commitment  
6 from non-Federal sources of at least 50 percent of  
7 the costs directly relating to a demonstration project  
8 under this section.

9 “(2) REDUCTION.—The Secretary may reduce  
10 the non-Federal requirement under paragraph (1) if  
11 the Secretary determines that the reduction is ap-  
12 propriate considering the technological risks involved  
13 in the project and is necessary to meet the objectives  
14 of this Act.”.

15 (2) COOPERATIVE AND COST-SHARING AGREE-  
16 MENTS; INTEGRATION OF TECHNICAL INFORMA-  
17 TION.—Title II of the Hydrogen Future Act of 1996  
18 (42 U.S.C. 12403 note; Public Law 104–271) is  
19 amended by striking section 202 and inserting the  
20 following:

21 **“SEC. 202. INTERAGENCY TASK FORCE.**

22 “(a) ESTABLISHMENT.—Not later than 120 days  
23 after the date of enactment of this section, the Secretary  
24 shall establish an interagency task force led by a Deputy

1 Assistant Secretary of the Department of Energy and  
2 comprised of representatives of—

3 “(1) the Office of Science and Technology Pol-  
4 icy;

5 “(2) the Department of Transportation;

6 “(3) the Department of Defense;

7 “(4) the Department of Commerce (including  
8 the National Institute for Standards and Tech-  
9 nology);

10 “(5) the Environmental Protection Agency;

11 “(6) the National Aeronautics and Space Ad-  
12 ministration; and

13 “(7) other agencies as appropriate.

14 “(b) DUTIES.—

15 “(1) IN GENERAL.—The task force shall de-  
16 velop a plan for carrying out this title.

17 “(2) FOCUS OF PLAN.—The plan shall focus on  
18 development and demonstration of integrated sys-  
19 tems and components for—

20 “(A) hydrogen production, storage, and  
21 use in Federal, State, and local government  
22 buildings and vehicles;

23 “(B) hydrogen-based infrastructure for  
24 buses and other fleet transportation systems  
25 that include zero-emission vehicles; and

1           “(C) hydrogen-based distributed power  
2           generation, including the generation of com-  
3           bined heat, power, and hydrogen.

4   **“SEC. 203. COOPERATIVE AND COST-SHARING AGREE-**  
5           **MENTS.**

6           “The Secretary shall enter into cooperative and cost-  
7   sharing agreements with Federal, State, and local agencies  
8   for participation by the agencies in demonstrations at fa-  
9   cilities administered by the agencies, with the aim of inte-  
10   grating high efficiency hydrogen systems using fuel cells  
11   into the facilities to provide immediate benefits and pro-  
12   mote a smooth transition to hydrogen as an energy source.

13   **“SEC. 204. INTEGRATION AND DISSEMINATION OF TECH-**  
14           **NICAL INFORMATION.**

15           “The Secretary shall—

16           “(1) integrate all the technical information that  
17           becomes available as a result of development and  
18           demonstration projects under this title;

19           “(2) make the information available to all Fed-  
20           eral and State agencies for dissemination to all in-  
21           terested persons; and

22           “(3) foster the exchange of generic, nonpropri-  
23           etary information and technology developed under  
24           this title among industry, academia, and Federal,  
25           State, and local governments, to help the United

1 States economy attain the economic benefits of the  
 2 information and technology.

3 **“SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

4 “There are authorized to be appropriated, for activi-  
 5 ties under this title—

6 “(1) \$25,000,000 for fiscal year 2003;

7 “(2) \$30,000,000 for fiscal year 2004;

8 “(3) \$35,000,000 for fiscal year 2005; and

9 “(4) \$40,000,000 for fiscal year 2006.”.

10 **Subtitle C—Fossil Energy**

11 **SEC. 1231. ENHANCED FOSSIL ENERGY RESEARCH AND DE-**  
 12 **VELOPMENT.**

13 (a) PROGRAM DIRECTION.—The Secretary shall con-  
 14 duct a balanced energy research, development, demonstra-  
 15 tion, and technology deployment program to enhance fossil  
 16 energy.

17 (b) PROGRAM GOALS.—

18 (1) CORE FOSSIL RESEARCH AND DEVELOP-  
 19 MENT.—The goals of the core fossil research and de-  
 20 velopment program shall be to reduce emissions  
 21 from fossil fuel use by developing technologies, in-  
 22 cluding precombustion technologies, by 2015 with  
 23 the capability of realizing—

24 (A) electricity generating efficiencies of 60  
 25 percent for coal and 75 percent for natural gas;

1 (B) combined heat and power thermal effi-  
2 ciencies of more than 85 percent;

3 (C) fuels utilization efficiency of 75 per-  
4 cent for the production of liquid transportation  
5 fuels from coal;

6 (D) near zero emissions of mercury and of  
7 emissions that form fine particles, smog, and  
8 acid rain;

9 (E) reduction of carbon dioxide emissions  
10 by at least 40 percent through efficiency im-  
11 provements and 100 percent with sequestration;  
12 and

13 (F) improved reliability, efficiency, reduc-  
14 tions of air pollutant emissions, or reductions in  
15 solid waste disposal requirements.

16 (2) OFFSHORE OIL AND NATURAL GAS RE-  
17 SOURCES.—The goal of the offshore oil and natural  
18 gas resources program shall be to develop tech-  
19 nologies to—

20 (A) extract methane hydrates in coastal  
21 waters of the United States, and

22 (B) develop natural gas and oil reserves in  
23 the ultra-deepwater of the Central and Western  
24 Gulf of Mexico.

1           (3) ONSHORE OIL AND NATURAL GAS RE-  
2 SOURCES.—The goal of the onshore oil and natural  
3 gas resources program shall be to advance the  
4 science and technology available to domestic onshore  
5 petroleum producers, particularly independent opera-  
6 tors, through—

7           (A) advances in technology for exploration  
8 and production of domestic petroleum re-  
9 sources, particularly those not accessible with  
10 current technology;

11           (B) improvement in the ability to extract  
12 hydrocarbons from known reservoirs and classes  
13 of reservoirs; and

14           (C) development of technologies and prac-  
15 tices that reduce the threat to the environment  
16 from petroleum exploration and production and  
17 decrease the cost of effective environmental  
18 compliance.

19           (4) TRANSPORTATION FUELS.—The goals of  
20 the transportation fuels program shall be to increase  
21 the price elasticity of oil supply and demand by fo-  
22 cusing research on—

23           (A) reducing the cost of producing trans-  
24 portation fuels from coal and natural gas; and



1 (B) indirect liquefaction of coal and bio-  
2 mass.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) IN GENERAL.—There are authorized to be  
5 appropriated to the Secretary for carrying out re-  
6 search, development, demonstration, and technology  
7 deployment activities under this section—

8 (A) \$485,000,000 for fiscal year 2003;

9 (B) \$508,000,000 for fiscal year 2004;

10 (C) \$532,000,000 for fiscal year 2005; and

11 (D) \$558,000,000 for fiscal year 2006.

12 (2) LIMITS ON USE OF FUNDS.—

13 (A) None of the funds authorized in para-  
14 graph (1) may be used for—

15 (i) Fossil energy environmental res-  
16 toration;

17 (ii) Import/export authorization;

18 (iii) Program direction; or

19 (iv) General plant projects.

20 (B) COAL-BASED PROJECTS.—The coal-  
21 based projects funded under this section shall  
22 be consistent with the goals in subsection (b).  
23 The program shall emphasize carbon capture  
24 and sequestration technologies and gasification  
25 technologies, including gasification combined

1 cycle, gasification fuel cells, gasification co-pro-  
2 duction, hybrid gasification/combustion, or  
3 other technology with the potential to address  
4 the goals in subparagraphs (D) or (E) of sub-  
5 section (b)(1).

6 **SEC. 1232. POWER PLANT IMPROVEMENT INITIATIVE.**

7 (a) PROGRAM DIRECTION.—The Secretary shall con-  
8 duct a balanced energy research, development, demonstra-  
9 tion, and technology deployment program to demonstrate  
10 commercial applications of advanced lignite and coal-based  
11 technologies applicable to new or existing power plants (in-  
12 cluding co-production plants) that advance the efficiency,  
13 environmental performance, and cost-competitiveness sub-  
14 stantially beyond technologies that are in operation or  
15 have been demonstrated by the date of enactment of this  
16 subtitle.

17 (b) TECHNICAL MILESTONES.—

18 (1) IN GENERAL.—The Secretary shall set tech-  
19 nical milestones specifying efficiency and emissions  
20 levels that projects shall be designed to achieve. The  
21 milestones shall become more restrictive over the life  
22 of the program.

23 (2) 2010 EFFICIENCY MILESTONES.—The mile-  
24 stones shall be designed to achieve by 2010 interim  
25 thermal efficiency of—

1 (A) 45 percent for coal of more than 9,000  
2 Btu;

3 (B) 44 percent for coal of 7,000 to 9,000  
4 Btu; and

5 (C) 42 percent for coal of less than 7,000  
6 Btu.

7 (3) 2020 EFFICIENCY MILESTONES.—The mile-  
8 stones shall be designed to achieve by 2020 thermal  
9 efficiency of—

10 (A) 60 percent for coal of more than 9,000  
11 Btu;

12 (B) 59 percent for coal of 7,000 to 9,000  
13 Btu; and

14 (C) 57 percent for coal of less than 7,000  
15 Btu.

16 (4) EMISSIONS MILESTONES.—The milestones  
17 shall include near zero emissions of mercury and  
18 greenhouse gases and of emissions that form fine  
19 particles, smog, and acid rain.

20 (5) REGIONAL AND QUALITY DIFFERENCES.—  
21 The Secretary may consider regional and quality dif-  
22 ferences in developing the efficiency milestones.

23 (c) PROJECT CRITERIA.—The demonstration activi-  
24 ties proposed to be conducted at a new or existing coal-  
25 based electric generation unit having a nameplate rating

1 of not less than 100 megawatts, excluding a co-production  
2 plant, shall include at least one of the following—

3 (1) a means of recycling or reusing a significant  
4 portion of coal combustion wastes produced by coal-  
5 based generating units, excluding practices that are  
6 commercially available by the date of enactment of  
7 this subtitle;

8 (2) a means of capture and sequestering emis-  
9 sions, including greenhouse gases, in a manner that  
10 is more effective and substantially below the cost of  
11 technologies that are in operation or that have been  
12 demonstrated by the date of enactment of this sub-  
13 title;

14 (3) a means of controlling sulfur dioxide and ni-  
15 trogen oxide or mercury in a manner that improves  
16 environmental performance beyond technologies that  
17 are in operation or that have been demonstrated by  
18 the date of enactment of this subtitle, and

19 (A) in the case of an existing unit, achieve  
20 an overall thermal design efficiency improve-  
21 ment compared to the efficiency of the unit as  
22 operated, of not less than—

23 (i) 7 percent for coal of more than  
24 9,000 Btu;

1 (ii) 6 percent for coal of 7,000 to  
2 9,000 Btu; or

3 (iii) 4 percent for coal of less than  
4 7,000 Btu; or

5 (B) in the case of a new unit, achieve the  
6 efficiency milestones set for in subsection (b)  
7 compared to the efficiency of a typical unit as  
8 operated on the date of enactment of this sub-  
9 title, before any retrofit, repowering, replace-  
10 ment, or installation.

11 (d) STUDY.—The Secretary, in consultation with the  
12 Administrator of the Environmental Protection Agency,  
13 the Secretary of the Interior, and interested entities (in-  
14 cluding coal producers, industries using coal, organiza-  
15 tions to promote coal or advanced coal technologies, envi-  
16 ronmental organizations, and organizations representing  
17 workers), shall conduct an assessment that identifies per-  
18 formance criteria that would be necessary for coal-based  
19 technologies to meet, to enable future reliance on coal in  
20 an environmentally sustainable manner for electricity gen-  
21 eration, use as a chemical feedstock, and use as a trans-  
22 portation fuel.

23 (e) AUTHORIZATION OF APPROPRIATIONS.—

24 (1) IN GENERAL.—There are authorized to be  
25 appropriated to the Secretary for carrying out activi-

1       ties under this section \$200,000,000 for each of fis-  
2       cal years 2003 through 2011.

3               (2) LIMITATION ON FUNDING OF PROJECTS.—  
4       Eighty percent of the funding under this section  
5       shall be limited to—

6                       (A) carbon capture and sequestration tech-  
7                       nologies; or

8                       (B) gasification technologies, including  
9                       gasification combined cycle, gasification fuel  
10                      cells, gasification co-production, or hybrid gas-  
11                      ification/combustion, or

12                      (C) or other technology either by itself or  
13                      in conjunction with other technologies has the  
14                      potential to achieve near zero emissions.

15 **SEC. 1233. RESEARCH AND DEVELOPMENT FOR ADVANCED**  
16 **SAFE AND EFFICIENT COAL MINING TECH-**  
17 **NOLOGIES.**

18       (a) ESTABLISHMENT.—The Secretary of Energy  
19       shall establish a cooperative research partnership involving  
20       appropriate Federal agencies, coal producers, including as-  
21       sociations, equipment manufacturers, universities with  
22       mining engineering departments, and other relevant enti-  
23       ties to—

24               (1) develop mining research priorities identified  
25       by the Mining Industry of the Future Program and

1 in the recommendations from relevant reports of the  
 2 National Academy of Sciences on mining tech-  
 3 nologies;

4 (2) establish a process for conducting joint in-  
 5 dustry-government research and development; and

6 (3) expand mining research capabilities at insti-  
 7 tutions of higher education.

8 (b) AUTHORIZATION OF APPROPRIATIONS.—

9 (1) IN GENERAL.—There are authorized to be  
 10 appropriated to carry out activities under this sec-  
 11 tion, \$12,000,000 in fiscal year 2003 and  
 12 \$15,000,000 in fiscal year 2004.

13 (2) LIMIT ON USE OF FUNDS.—Not less than  
 14 20 percent of any funds appropriated in a given fis-  
 15 cal year under this subsection shall be dedicated to  
 16 research carried out at institutions of higher edu-  
 17 cation.

18 **SEC. 1234. ULTRA-DEEPWATER AND UNCONVENTIONAL RE-**  
 19 **SOURCE EXPLORATION AND PRODUCTION**  
 20 **TECHNOLOGIES.**

21 (a) DEFINITIONS.—In this section:

22 (1) ADVISORY COMMITTEE.—The term “Advi-  
 23 sory Committee” means the Ultra-Deepwater and  
 24 Unconventional Resource Technology Advisory Com-  
 25 mittee established under subsection (c).

1           (2) AWARD.—The term “award” means a coop-  
2           erative agreement, contract, award or other types of  
3           agreement as appropriate.

4           (3) DEEPWATER.—The term “deepwater”  
5           means a water depth that is greater than 200 but  
6           less than 1,500 meters.

7           (4) ELIGIBLE AWARD RECIPIENT.—The term  
8           “eligible award recipient” includes—

9                   (A) a research institution;

10                   (B) an institution of higher education;

11                   (C) a corporation; and

12                   (D) a managing consortium formed among  
13           entities described in subparagraphs (A) through  
14           (C).

15           (5) INSTITUTION OF HIGHER EDUCATION.—The  
16           term “institution of higher education” has the  
17           meaning given the term in section 101 of the Higher  
18           Education Act of 1965 (20 U.S.C. 1001).

19           (6) MANAGING CONSORTIUM.—The term “man-  
20           aging consortium” means an entity that—

21                   (A) exists as of the date of enactment of  
22           this section;

23                   (B)(i) is an organization described in sec-  
24           tion 501(c)(3) of the Internal Revenue Code of  
25           1986; and



1 (ii) is exempt from taxation under section  
2 501(a) of that Code;

3 (C) is experienced in planning and man-  
4 aging programs in natural gas or other petro-  
5 leum exploration and production research, de-  
6 velopment, and demonstration; and

7 (D) has demonstrated capabilities and ex-  
8 perience in representing the views and priorities  
9 of industry, institutions of higher education and  
10 other research institutions in formulating com-  
11 prehensive research and development plans and  
12 programs.

13 (7) PROGRAM.—The term “program” means  
14 the program of research, development, and dem-  
15 onstration established under subsection (b)(1)(A).

16 (8) ULTRA-DEEPWATER.—The term “ultra-  
17 deepwater” means a water depth that is equal to or  
18 greater than 1,500 meters.

19 (9) ULTRA-DEEPWATER ARCHITECTURE.—The  
20 term “ultra-deepwater architecture” means the inte-  
21 gration of technologies to explore and produce nat-  
22 ural gas or petroleum products located at ultra-deep-  
23 water depths.

24 (10) ULTRA-DEEPWATER RESOURCE.—The  
25 term “ultra-deepwater resource” means natural gas

1 or any other petroleum resource (including methane  
2 hydrate) located in an ultra-deepwater area.

3 (11) UNCONVENTIONAL RESOURCE.—The term  
4 “unconventional resource” means natural gas or any  
5 other petroleum resource located in a formation on  
6 physically or economically inaccessible land currently  
7 available for lease for purposes of natural gas or  
8 other petroleum exploration or production.

9 (b) ULTRA-DEEPWATER AND UNCONVENTIONAL EX-  
10 PLORATION AND PRODUCTION PROGRAM.—

11 (1) ESTABLISHMENT.—

12 (A) IN GENERAL.—The Secretary shall es-  
13 tablish a program of research into, and develop-  
14 ment and demonstration of, ultra-deepwater re-  
15 source and unconventional resource exploration  
16 and production technologies.

17 (B) LOCATION; IMPLEMENTATION.—The  
18 program under this subsection shall be carried  
19 out—

20 (i) in areas on the outer Continental  
21 Shelf that, as of the date of enactment of  
22 this section, are available for leasing; and  
23 (ii) on unconventional resources.

24 (2) COMPONENTS.—The program shall include  
25 one or more programs for long-term research into—

1           (A) new deepwater ultra-deepwater re-  
2           source and unconventional resource exploration  
3           and production technologies; or

4           (B) environmental mitigation technologies  
5           for production of ultra-deepwater resource and  
6           unconventional resource.

7       (c) ADVISORY COMMITTEE.—

8           (1) ESTABLISHMENT.—Not later than 30 days  
9           after the date of enactment of this section, the Sec-  
10          retary shall establish an advisory committee to be  
11          known as the “Ultra-Deepwater and Unconventional  
12          Resource Technology Advisory Committee”.

13          (2) MEMBERSHIP.—

14           (A) COMPOSITION.—Subject to subpara-  
15           graph (B), the advisory committee shall be com-  
16           posed of 7 members appointed by the Secretary  
17           that—

18                   (i) have extensive operational knowl-  
19                   edge of and experience in the natural gas  
20                   and other petroleum exploration and pro-  
21                   duction industry; and

22                   (ii) are not Federal employees or em-  
23                   ployees of contractors to a federal agency.

1 (B) EXPERTISE.—Of the members of the  
2 advisory committee appointed under subpara-  
3 graph (A)—

4 (i) at least 4 members shall have ex-  
5 tensive knowledge of ultra-deepwater re-  
6 source exploration and production tech-  
7 nologies;

8 (ii) at least 3 members shall have ex-  
9 tensive knowledge of unconventional re-  
10 source exploration and production tech-  
11 nologies.

12 (3) DUTIES.—The advisory committee shall ad-  
13 vise the Secretary in the implementation of this sec-  
14 tion.

15 (4) COMPENSATION.—A member of the advi-  
16 sory committee shall serve without compensation but  
17 shall receive travel expenses, including per diem in  
18 lieu of subsistence, in accordance with applicable  
19 provisions under subchapter I of chapter 57 of title  
20 5, United States Code.

21 (d) AWARDS.—

22 (1) TYPES OF AWARDS.—

23 (A) ULTRA-DEEPWATER RESOURCES.—

24 (i) IN GENERAL.—The Secretary shall  
25 make awards for research into, and devel-

1           opment and demonstration of, ultra-deep-  
2           water resource exploration and production  
3           technologies—

4                   (I) to maximize the value of the  
5                   ultra-deepwater resources of the  
6                   United States;

7                   (II) to increase the supply of  
8                   ultra-deepwater resources by lowering  
9                   the cost and improving the efficiency  
10                  of exploration and production of such  
11                  resources; and

12                  (III) to improve safety and mini-  
13                  mize negative environmental impacts  
14                  of that exploration and production.

15           (ii) ULTRA-DEEPWATER ARCHITEC-  
16           TURE.—In furtherance of the purposes de-  
17           scribed in clause (i), the Secretary shall,  
18           where appropriate, solicit proposals from a  
19           managing consortium to develop and dem-  
20           onstrate next-generation architecture for  
21           ultra-deepwater resource production.

22           (B) UNCONVENTIONAL RESOURCES.—The  
23           Secretary shall make awards—

24                   (i) to carry out research into, and de-  
25                   velopment and demonstration of, tech-

1                   nologies to maximize the value of uncon-  
2                   ventional resources; and

3                   (ii) to develop technologies to  
4                   simultaneously—

5                   (I) increase the supply of uncon-  
6                   ventional resources by lowering the  
7                   cost and improving the efficiency of  
8                   exploration and production of uncon-  
9                   ventional resources; and

10                  (II) improve safety and minimize  
11                  negative environmental impacts of  
12                  that exploration and production.

13                  (2) CONDITIONS.—An award made under this  
14                  subsection shall be subject to the following condi-  
15                  tions:

16                  (A) MULTIPLE ENTITIES.—If an award re-  
17                  cipient is composed of more than one eligible  
18                  organization, the recipient shall provide a  
19                  signed contract, agreed to by all eligible organi-  
20                  zations comprising the award recipient, that de-  
21                  fines, in a manner that is consistent with all  
22                  applicable law in effect as of the date of the  
23                  contract, all rights to intellectual property for—

24                  (i) technology in existence as of that  
25                  date; and

1 (ii) future inventions conceived and  
2 developed using funds provided under the  
3 award.

4 (B) COMPONENTS OF APPLICATION.—An  
5 application for an award for a demonstration  
6 project shall describe with specificity any in-  
7 tended commercial applications of the tech-  
8 nology to be demonstrated.

9 (C) COST SHARING.—Non-federal cost  
10 sharing shall be in accordance with section  
11 1403.

12 (e) PLAN AND FUNDING.—

13 (1) IN GENERAL.—The Secretary, and where  
14 appropriate, a managing consortium under sub-  
15 section (d)(1)(A)(ii), shall formulate annual oper-  
16 ating and performance objectives, develop multi-year  
17 technology roadmaps, and establish research and de-  
18 velopment priorities for the funding of activities  
19 under this section which will serve as guidelines for  
20 making awards including cost-matching objectives.

21 (2) INDUSTRY INPUT.—In carrying out this  
22 program, the Secretary shall promote maximum in-  
23 dustry input through the use of managing consortia  
24 or other organizations in planning and executing the  
25 research areas and conducting workshops or reviews

1 to ensure that this program focuses on industry  
2 problems and needs.

3 (f) AUDITING.—

4 (1) IN GENERAL.—The Secretary shall retain  
5 an independent, commercial auditor to determine the  
6 extent to which funds authorized by this section,  
7 provided through a managing consortium, are ex-  
8 pended in a manner consistent with the purposes of  
9 this section.

10 (2) REPORTS.—The auditor retained under  
11 paragraph (1) shall submit to the Secretary, and the  
12 Secretary shall transmit to the appropriate congres-  
13 sional committees, an annual report that describes—

14 (A) the findings of the auditor under para-  
15 graph (1); and

16 (B) a plan under which the Secretary may  
17 remedy any deficiencies identified by the audi-  
18 tor.

19 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
20 are authorized to be appropriated to the Secretary such  
21 sums as may be necessary to carry out this section.

22 (h) TERMINATION OF AUTHORITY.—The authority  
23 provided by this section shall terminate on September 30,  
24 2009.



1 (i) SAVINGS PROVISION.—Nothing in this section is  
2 intended to displace, duplicate or diminish any previously  
3 authorized research activities of the Department of En-  
4 ergy.

5 **SEC. 1235. RESEARCH AND DEVELOPMENT FOR NEW NAT-**  
6 **URAL GAS TRANSPORTATION TECH-**  
7 **NOLOGIES.**

8 The Secretary of Energy shall conduct a comprehen-  
9 sive five-year program for research, development and dem-  
10 onstration to improve the reliability, efficiency, safety and  
11 integrity of the natural gas transportation and distribu-  
12 tion infrastructure and for distributed energy resources  
13 (including microturbines, fuel cells, advanced engine-gen-  
14 erators, gas turbines, reciprocating engines, hybrid power  
15 generation systems, and all ancillary equipment for dis-  
16 patch, control and maintenance).

17 **SEC. 1236. AUTHORIZATION OF APPROPRIATIONS FOR OF-**  
18 **FICE OF ARCTIC ENERGY.**

19 There are authorized to be appropriated to the Sec-  
20 retary for the Office of Arctic Energy under section 3197  
21 of the Floyd D. Spence National Defense Authorization  
22 Act for Fiscal Year 2001 (P.L. 106–398) such sums as  
23 may be necessary, but not to exceed \$25,000,000 for each  
24 of fiscal years 2003 through 2011.

1           **Subtitle D—Nuclear Energy**

2   **SEC. 1241. ENHANCED NUCLEAR ENERGY RESEARCH AND**  
3           **DEVELOPMENT.**

4           (a) PROGRAM DIRECTION.—The Secretary shall con-  
5   duct an energy research, development, demonstration, and  
6   technology deployment program to enhance nuclear en-  
7   ergy.

8           (b) PROGRAM GOALS.—The program shall—

9               (1) support research related to existing United  
10   States nuclear power reactors to extend their life-  
11   times and increase their reliability while optimizing  
12   their current operations for greater efficiencies;

13              (2) examine advanced proliferation-resistant  
14   and passively safe reactor designs, new reactor de-  
15   signs with higher efficiency, lower cost, and im-  
16   proved safety, proliferation-resistant and high burn-  
17   up nuclear fuels, minimization of generation of ra-  
18   dioactive materials, improved nuclear waste manage-  
19   ment technologies, and improved instrumentation  
20   science;

21              (3) attract new students and faculty to the nu-  
22   clear sciences and nuclear engineering and related  
23   fields (including health physics and nuclear and  
24   radiochemistry) through—

1 (A) university-based fundamental research  
2 for existing faculty and new junior faculty;

3 (B) support for the re-licensing of existing  
4 training reactors at universities in conjunction  
5 with industry; and

6 (C) completing the conversion of existing  
7 training reactors with proliferation resistant  
8 fuels that are low enriched and to adapt those  
9 reactors to new investigative uses;

10 (4) maintain a national capability and infra-  
11 structure to produce medical isotopes and ensure a  
12 well trained cadre of nuclear medicine specialists in  
13 partnership with industry;

14 (5) ensure that our nation has adequate capa-  
15 bility to power future satellite and space missions;  
16 and

17 (6) maintain, where appropriate through a  
18 prioritization process, a balanced research infra-  
19 structure so that future research programs can use  
20 these facilities.

21 (c) AUTHORIZATION OF APPROPRIATIONS.—

22 (1) CORE NUCLEAR RESEARCH PROGRAMS.—

23 There are authorized to be appropriated to the Sec-  
24 retary for carrying out research, development, dem-

1        onstration, and technology deployment activities  
2        under subsection (b)(1) through (3)—

3                    (A) \$100,000,000 for fiscal year 2003;

4                    (B) \$110,000,000 for fiscal year 2004;

5                    (C) \$120,000,000 for fiscal year 2005; and

6                    (D) \$130,000,000 for fiscal year 2006.

7            (2) SUPPORTING NUCLEAR ACTIVITIES.—There  
8        are authorized to be appropriated to the Secretary  
9        for carrying out activities under subsection (b)(4)  
10       through (6), as well as nuclear facilities management  
11       and program direction—

12                    (A) \$200,000,000 for fiscal year 2003;

13                    (B) \$202,000,000 for fiscal year 2004;

14                    (C) \$207,000,000 for fiscal year 2005; and

15                    (D) \$212,000,000 for fiscal year 2006.

16   **SEC. 1242. UNIVERSITY NUCLEAR SCIENCE AND ENGINEER-**  
17   **ING SUPPORT.**

18        (a) ESTABLISHMENT.—The Secretary shall support  
19       a program to maintain the nation’s human resource in-  
20       vestment and infrastructure in the nuclear sciences and  
21       engineering and related fields (including health physics  
22       and nuclear and radiochemistry), consistent with depart-  
23       mental missions related to civilian nuclear research and  
24       development.

1 (b) DUTIES.—In carrying out the program under this  
2 section, the Secretary shall—

3 (1) develop a graduate and undergraduate fel-  
4 lowship program to attract new and talented stu-  
5 dents;

6 (2) assist universities in recruiting and retain-  
7 ing new faculty in the nuclear sciences and engineer-  
8 ing through a Junior Faculty Research Initiation  
9 Grant Program;

10 (3) support fundamental nuclear sciences and  
11 engineering research through the Nuclear Engineer-  
12 ing Education Research Program;

13 (4) encourage collaborative nuclear research be-  
14 tween industry, national laboratories and universities  
15 through the Nuclear Energy Research Initiative; and

16 (5) support communication and outreach re-  
17 lated to nuclear science and engineering.

18 (c) MAINTAINING UNIVERSITY RESEARCH AND  
19 TRAINING REACTORS AND ASSOCIATED INFRASTRUC-  
20 TURE.—Activities under this section may include:

21 (1) converting research reactors to low-enrich-  
22 ment fuels, upgrading operational instrumentation,  
23 and sharing of reactors among universities;

24 (2) providing technical assistance, in collabora-  
25 tion with the U.S. nuclear industry, in re-licensing

1 and upgrading training reactors as part of a student  
2 training program;

3 (3) providing funding for reactor improvements  
4 as part of a focused effort that emphasizes research,  
5 training, and education.

6 (d) UNIVERSITY-NATIONAL LABORATORY INTER-  
7 ACTIONS.—The Secretary shall develop—

8 (1) a sabbatical fellowship program for univer-  
9 sity professors to spend extended periods of time at  
10 National Laboratories in the areas of nuclear science  
11 and technology; and

12 (2) a visiting scientist program in which Na-  
13 tional Laboratory staff can spend time in academic  
14 nuclear science and engineering departments. The  
15 Secretary may provide for fellowships for students to  
16 spend time at National Laboratories in the area of  
17 nuclear science with a member of the Laboratory  
18 staff acting as a mentor.

19 (e) OPERATING AND MAINTENANCE COSTS.—Fund-  
20 ing for a research project provided under this section may  
21 be used to offset a portion of the operating and mainte-  
22 nance costs of a university research reactor used in the  
23 research project, on a cost-shared basis with the univer-  
24 sity.

1 (f) AUTHORIZATION OF APPROPRIATIONS.—From  
2 amounts authorized under section 1241(c)(1), the fol-  
3 lowing amounts are authorized for activities under this  
4 section—

5 (1) \$33,000,000 for fiscal year 2003;

6 (2) \$37,900,000 for fiscal year 2004;

7 (3) \$43,600,000 for fiscal year 2005; and

8 (4) \$50,100,000 for fiscal year 2006.

9 **SEC. 1243. NUCLEAR ENERGY RESEARCH INITIATIVE.**

10 (a) ESTABLISHMENT.—The Secretary shall support  
11 a Nuclear Energy Research Initiative for grants for re-  
12 search relating to nuclear energy.

13 (b) AUTHORIZATION OF APPROPRIATIONS.—From  
14 amounts authorized under section 1241(c), there are au-  
15 thorized to be appropriated to the Secretary for activities  
16 under this section such sums as are necessary for each  
17 fiscal year.

18 **SEC. 1244. NUCLEAR ENERGY PLANT OPTIMIZATION PRO-**  
19 **GRAM.**

20 (a) ESTABLISHMENT.—The Secretary shall support  
21 a Nuclear Energy Plant Optimization Program for grants  
22 to improve nuclear energy plant reliability, availability,  
23 and productivity. Notwithstanding section 1403, the pro-  
24 gram shall require industry cost-sharing of at least 50 per-

1 cent and be subject to annual review by the Nuclear En-  
2 ergy Research Advisory Committee of the Department.

3 (b) AUTHORIZATION OF APPROPRIATIONS.—From  
4 amounts authorized under section 1241(c), there are au-  
5 thorized to be appropriated to the Secretary for activities  
6 under this section such sums as are necessary for each  
7 fiscal year.

8 **SEC. 1245. NUCLEAR ENERGY TECHNOLOGY DEVELOPMENT**  
9 **PROGRAM.**

10 (a) ESTABLISHMENT.—The Secretary shall support  
11 a Nuclear Energy Technology Development Program to  
12 develop a technology roadmap to design and develop new  
13 nuclear energy powerplants in the United States.

14 (b) GENERATION IV REACTOR STUDY.—The Sec-  
15 retary shall, as part of the program under subsection (a),  
16 also conduct a study of Generation IV nuclear energy sys-  
17 tems, including development of a technology roadmap and  
18 performance of research and development necessary to  
19 make an informed technical decision regarding the most  
20 promising candidates for commercial deployment. The  
21 study shall examine advanced proliferation-resistant and  
22 passively safe reactor designs, new reactor designs with  
23 higher efficiency, lower cost and improved safety, pro-  
24 liferation-resistant and high burn-up fuels, minimization  
25 of generation of radioactive materials, improved nuclear



1 waste management technologies, and improved instrumen-  
2 tation science. Not later than December 31, 2002, the Sec-  
3 retary shall submit to Congress a report describing the  
4 results of the study.

5 (c) AUTHORIZATION OF APPROPRIATIONS.—From  
6 amounts authorized to be appropriated under section  
7 1241(c), there are authorized to be appropriated to the  
8 Secretary for activities under this section such sums as  
9 are necessary for each fiscal year.

## 10 **Subtitle E—Fundamental Energy** 11 **Science**

### 12 **SEC. 1251. ENHANCED PROGRAMS IN FUNDAMENTAL EN-** 13 **ERGY SCIENCE.**

14 (a) PROGRAM DIRECTION.—The Secretary, acting  
15 through the Office of Science, shall—

16 (1) conduct a comprehensive program of funda-  
17 mental research, including research on chemical  
18 sciences, physics, materials sciences, biological and  
19 environmental sciences, geosciences, engineering  
20 sciences, plasma sciences, mathematics, and ad-  
21 vanced scientific computing;

22 (2) maintain, upgrade and expand the scientific  
23 user facilities maintained by the Office of Science  
24 and ensure that they are an integral part of the de-

1       partmental mission for exploring the frontiers of  
2       fundamental science;

3           (3) maintain a leading-edge research capability  
4       in the energy-related aspects of nanoscience and  
5       nanotechnology, advanced scientific computing and  
6       genome research; and

7           (4) ensure that its fundamental science pro-  
8       grams, where appropriate, help inform the applied  
9       research and development programs of the Depart-  
10      ment.

11      (b) AUTHORIZATION OF APPROPRIATIONS.—There  
12   are authorized to be appropriated to the Secretary for car-  
13   rying out research, development, demonstration, and tech-  
14   nology deployment activities under this subtitle—

15           (1) \$3,785,000,000 for fiscal year 2003;

16           (2) \$4,153,000,000 for fiscal year 2004;

17           (3) \$4,586,000,000 for fiscal year 2005; and

18           (4) \$5,000,000,000 for fiscal year 2006.

19   **SEC. 1252. NANOSCALE SCIENCE AND ENGINEERING RE-**  
20                   **SEARCH.**

21      (a) ESTABLISHMENT.—The Secretary, acting  
22   through the Office of Science, shall support a program of  
23   research and development in nanoscience and  
24   nanoengineering consistent with the Department's statu-  
25   tory authorities related to research and development. The

1 program shall include efforts to further the understanding  
2 of the chemistry, physics, materials science and engineer-  
3 ing of phenomena on the scale of 1 to 100 nanometers.

4 (b) DUTIES OF THE OFFICE OF SCIENCE.—In car-  
5 rying out the program under this section, the Office of  
6 Science shall—

7 (1) support both individual investigators and  
8 multidisciplinary teams of investigators;

9 (2) pursuant to subsection (c), develop, plan,  
10 construct, acquire, or operate special equipment or  
11 facilities for the use of investigators conducting re-  
12 search and development in nanoscience and  
13 nanoengineering;

14 (3) support technology transfer activities to  
15 benefit industry and other users of nanoscience and  
16 nanoengineering; and

17 (4) coordinate research and development activi-  
18 ties with industry and other federal agencies.

19 (c) NANOSCIENCE AND NANOENGINEERING RE-  
20 SEARCH CENTERS AND MAJOR INSTRUMENTATION.—

21 (1) AUTHORIZATION.—From amounts author-  
22 ized to be appropriated under section 1251(b), the  
23 amounts specified under subsection (d)(2) shall, sub-  
24 ject to appropriations, be available for projects to  
25 develop, plan, construct, acquire, or operate special

1 equipment, instrumentation, or facilities for inves-  
2 tigators conducting research and development in  
3 nanoscience and nanoengineering.

4 (2) PROJECTS.—Projects under paragraph (1)  
5 may include the measurement of properties at the  
6 scale of 1 to 100 nanometers, manipulation at such  
7 scales, and the integration of technologies based on  
8 nanoscience or nanoengineering into bulk materials  
9 or other technologies.

10 (3) FACILITIES.—Facilities under paragraph  
11 (1) may include electron microcharacterization facili-  
12 ties, microlithography facilities, scanning probe fa-  
13 cilities and related instrumentation science.

14 (4) COLLABORATION.—The Secretary shall en-  
15 courage collaborations among universities, labora-  
16 tories and industry at facilities under this sub-  
17 section. At least one facility under this subsection  
18 shall have a specific mission of technology transfer  
19 to other institutions and to industry.

20 (d) AUTHORIZATION OF APPROPRIATIONS.—

21 (1) TOTAL AUTHORIZATION.—From amounts  
22 authorized to be appropriated under section 1251(b),  
23 the following amounts are authorized for activities  
24 under this section—

25 (A) \$270,000,000 for fiscal year 2003;

1 (B) \$290,000,000 for fiscal year 2004;

2 (C) \$310,000,000 for fiscal year 2005; and

3 (D) \$330,000,000 for fiscal year 2006.

4 (2) NANOSCIENCE AND NANOENGINEERING RE-  
5 SEARCH CENTERS AND MAJOR INSTRUMENTATION.—

6 Of the amounts under paragraph (1), the following  
7 amounts are authorized to carry out subsection  
8 (c)—

9 (A) \$135,000,000 for fiscal year 2003;

10 (B) \$150,000,000 for fiscal year 2004;

11 (C) \$120,000,000 for fiscal year 2005; and

12 (D) \$100,000,000 for fiscal year 2006.

13 **SEC. 1253. ADVANCED SCIENTIFIC COMPUTING FOR EN-**  
14 **ERGY MISSIONS.**

15 (a) ESTABLISHMENT.—The Secretary, acting  
16 through the Office of Science, shall support a program to  
17 advance the Nation's computing capability across a diverse  
18 set of grand challenge computationally based science prob-  
19 lems related to departmental missions.

20 (b) DUTIES OF THE OFFICE OF SCIENCE.—In car-  
21 rying out the program under this section, the Office of  
22 Science shall—

23 (1) advance basic science through computation  
24 by developing software to solve grand challenge

1 science problems on new generations of computing  
2 platforms,

3 (2) enhance the foundations for scientific com-  
4 puting by developing the basic mathematical and  
5 computing systems software needed to take full ad-  
6 vantage of the computing capabilities of computers  
7 with peak speeds of 100 teraflops or more, some of  
8 which may be unique to the scientific problem of in-  
9 terest,

10 (3) enhance national collaboratory and net-  
11 working capabilities by developing software to inte-  
12 grate geographically separated researchers into ef-  
13 fective research teams and to facilitate access to and  
14 movement and analysis of large (petabyte) data sets,  
15 and

16 (4) maintain a robust scientific computing  
17 hardware infrastructure to ensure that the com-  
18 puting resources needed to address DOE missions  
19 are available; explore new computing approaches and  
20 technologies that promise to advance scientific com-  
21 puting.

22 (c) HIGH-PERFORMANCE COMPUTING ACT PRO-  
23 GRAM.—Section 203(a) of the High-Performance Com-  
24 puting Act of 1991 (15 U.S.C. 5523(a)) is amended—

25 (1) in paragraph (3), by striking “and”;

1           (2) in paragraph (4), by striking the period and  
2     inserting “; and”; and

3           (3) by adding after paragraph (4) the following:  
4     “(5) conduct an integrated program of research, de-  
5     velopment, and provision of facilities to develop and  
6     deploy to scientific and technical users the high-per-  
7     formance computing and collaboration tools needed  
8     to fulfill the statutory missions of the Department of  
9     Energy in conducting basic and applied energy re-  
10    search.”.

11       (d) COORDINATION WITH THE DOE NATIONAL NU-  
12    CLEAR SECURITY AGENCY ACCELERATED STRATEGIC  
13    COMPUTING INITIATIVE AND OTHER NATIONAL COM-  
14    PUTING PROGRAMS.—The Secretary shall ensure that this  
15    program, to the extent feasible, is integrated and con-  
16    sistent with—

17           (1) the Accelerated Strategic Computing Initia-  
18     tive of the National Nuclear Security Agency; and

19           (2) other national efforts related to advanced  
20     scientific computing for science and engineering.

21       (e) AUTHORIZATION OF APPROPRIATIONS.—From  
22    amounts authorized under section 1251(b), the following  
23    amounts are authorized for activities under this section—

24           (1) \$285,000,000 for fiscal year 2003;

25           (2) \$300,000,000 for fiscal year 2004;

1 (3) \$310,000,000 for fiscal year 2005; and

2 (4) \$320,000,000 for fiscal year 2006.

3 **SEC. 1254. FUSION ENERGY SCIENCES PROGRAM AND**  
4 **PLANNING.**

5 (a) OVERALL PLAN FOR FUSION ENERGY SCIENCES  
6 PROGRAM.—

7 (1) IN GENERAL.—Not later than 6 months  
8 after the date of enactment of this subtitle, the Sec-  
9 retary, after consultation with the Fusion Energy  
10 Sciences Advisory Committee, shall develop and  
11 transmit to the Congress a plan to ensure a strong  
12 scientific base for the Fusion Energy Sciences Pro-  
13 gram within the Office of Science and to enable the  
14 experiments described in subsections (b) and (c).

15 (2) OBJECTIVES OF PLAN.—The plan under  
16 this subsection shall include as its objectives—

17 (A) to ensure that existing fusion research  
18 facilities and equipment are more fully utilized  
19 with appropriate measurements and control  
20 tools;

21 (B) to ensure a strengthened fusion science  
22 theory and computational base;

23 (C) to encourage and ensure that the selec-  
24 tion of and funding for new magnetic and iner-



1            tial fusion research facilities is based on sci-  
2            entific innovation and cost effectiveness;

3            (D) to improve the communication of sci-  
4            entific results and methods between the fusion  
5            science community and the wider scientific com-  
6            munity;

7            (E) to ensure that adequate support is  
8            provided to optimize the design of the magnetic  
9            fusion burning plasma experiments referred to  
10          in subsections (b) and (c); and

11          (F) to ensure that inertial confinement fu-  
12          sion facilities are utilized to the extent prac-  
13          ticable for the purpose of inertial fusion energy  
14          research and development.

15          (b) PLAN FOR UNITED STATES FUSION EXPERI-  
16          MENT.—

17          (1) IN GENERAL.—The Secretary, after con-  
18          sultation with the Fusion Energy Sciences Advisory  
19          Committee, shall develop a plan for construction in  
20          the United States of a magnetic fusion burning plas-  
21          ma experiment for the purpose of accelerating sci-  
22          entific understanding of fusion plasmas. The Sec-  
23          retary shall request a review of the plan by the Na-  
24          tional Academy of Sciences and shall transmit the

1        plan and the review to the Congress by July 1,  
2        2004.

3            (2) REQUIREMENTS OF PLAN.—The plan de-  
4        scribed in paragraph (1) shall—

5            (A) address key burning plasma physics  
6        issues; and

7            (B) include specific information on the sci-  
8        entific capabilities of the proposed experiment,  
9        the relevance of these capabilities to the goal of  
10       practical fusion energy, and the overall design  
11       of the experiment including its estimated cost  
12       and potential construction sites.

13        (c) PLAN FOR PARTICIPATION IN AN INTERNATIONAL  
14       EXPERIMENT.—In addition to the plan described in sub-  
15       section (b), the Secretary, after consultation with the Fu-  
16       sion Energy Sciences Advisory Committee, may also de-  
17       velop a plan for United States participation in an inter-  
18       national burning plasma experiment for the same purpose,  
19       whose construction is found by the Secretary to be highly  
20       likely and where United States participation is cost-effec-  
21       tive relative to the cost and scientific benefits of a domes-  
22       tic experiment described in subsection (b). If the Secretary  
23       elects to develop a plan under this subsection, he shall in-  
24       clude the information described in subsection (b)(2), and  
25       an estimate of the cost of United States participation in

1 such an international experiment. The Secretary shall re-  
2 quest a review by the National Academy of Sciences of  
3 a plan developed under this subsection, and shall transmit  
4 the plan and the review to the Congress no later than July  
5 1, 2004.

6 (d) AUTHORIZATION FOR RESEARCH AND DEVELOP-  
7 MENT.—The Secretary, through the Office of Science,  
8 may conduct any research and development necessary to  
9 fully develop the plans described in this section.

10 (e) AUTHORIZATION OF APPROPRIATIONS.—From  
11 amounts authorized under section 1251(b) for fiscal year  
12 2003, \$335,000,000 are authorized for fiscal year 2003  
13 for activities under this section and for activities of the  
14 Fusion Energy Sciences Program.

15 **Subtitle F—Energy, Safety, and**  
16 **Environmental Protection**

17 **SEC. 1261. CRITICAL ENERGY INFRASTRUCTURE PROTEC-**  
18 **TION RESEARCH AND DEVELOPMENT.**

19 (a) IN GENERAL.—The Secretary shall carry out a  
20 research, development, demonstration and technology de-  
21 ployment program, in partnership with industry, on crit-  
22 ical energy infrastructure protection, consistent with the  
23 roles and missions outlined for the Secretary in Presi-  
24 dential Decision Directive 63, entitled “Critical Infra-

1 structure Protection”. The program shall have the fol-  
2 lowing goals:

3 (1) Increase the understanding of physical and  
4 information system disruptions to the energy infra-  
5 structure that could result in cascading or wide-  
6 spread regional outages.

7 (2) Develop energy infrastructure assurance  
8 “best practices” through vulnerability and risk as-  
9 sessments.

10 (3) Protect against, mitigate the effect of, and  
11 improve the ability to recover from disruptive inci-  
12 dents within the energy infrastructure.

13 (b) PROGRAM SCOPE.—The program under sub-  
14 section (a) shall include research, development, deploy-  
15 ment, technology demonstration for—

16 (1) analysis of energy infrastructure inter-  
17 dependencies to quantify the impacts of system  
18 vulnerabilities in relation to each other;

19 (2) probabilistic risk assessment of the energy  
20 infrastructure to account for unconventional and ter-  
21 rorist threats;

22 (3) incident tracking and trend analysis tools to  
23 assess the severity of threats and reported incidents  
24 to the energy infrastructure; and

1           (4) integrated multi-sensor, warning and miti-  
2           gation technologies to detect, integrate, and localize  
3           events affecting the energy infrastructure including  
4           real time control to permit the reconfiguration of en-  
5           ergy delivery systems.

6           (c) REGIONAL COORDINATION.—The program under  
7           this section shall cooperate with Departmental activities  
8           to promote regional coordination under section 102 of this  
9           Act, to ensure that the technologies and assessments de-  
10          veloped by the program are transferred in a timely manner  
11          to State and local authorities, and to the energy indus-  
12          tries.

13          (d) COORDINATION WITH INDUSTRY RESEARCH OR-  
14          GANIZATIONS.—The Secretary may enter into grants, con-  
15          tracts, and cooperative agreements with industry research  
16          organizations to facilitate industry participation in re-  
17          search under this section and to fulfill applicable cost-  
18          sharing requirements.

19          (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
20          authorized to be appropriated to the Secretary to carry  
21          out this section—

- 22               (1) \$25,000,000 for fiscal year 2003;  
23               (2) \$26,000,000 for fiscal year 2004;  
24               (3) \$27,000,000 for fiscal year 2005; and  
25               (4) \$28,000,000 for fiscal year 2006.

1       (f) **CRITICAL ENERGY INFRASTRUCTURE FACILITY**  
2 **DEFINED.**—For purposes of this section, the term “crit-  
3 ical energy infrastructure facility” means a physical or  
4 cyber-based system or service for the generation, trans-  
5 mission or distribution of electrical energy, or the produc-  
6 tion, refining, transportation, or storage of petroleum, nat-  
7 ural gas, or petroleum product, the incapacity or destruc-  
8 tion of which would have a debilitating impact on the de-  
9 fense or economic security of the United States. The term  
10 shall not include a facility that is licensed by the Nuclear  
11 Regulatory Commission under section 103 or 104b of the  
12 Atomic Energy Act of 1954 (42 U.S.C. 2133 and  
13 2134(b)).

14 **SEC. 1262. PIPELINE INTEGRITY, SAFETY, AND RELIABILITY**  
15 **RESEARCH AND DEVELOPMENT.**

16       (a) **IN GENERAL.**—The Secretary of Transportation,  
17 in coordination with the Secretary of Energy, shall develop  
18 and implement an accelerated cooperative program of re-  
19 search and development to ensure the integrity of natural  
20 gas and hazardous liquid pipelines. This research and de-  
21 velopment program shall include materials inspection tech-  
22 niques, risk assessment methodology, and information sys-  
23 tems surety.

1       (b) PURPOSE.—The purpose of the cooperative re-  
2 search program shall be to promote research and develop-  
3 ment to—

4           (1) ensure long-term safety, reliability and serv-  
5 ice life for existing pipelines;

6           (2) expand capabilities of internal inspection  
7 devices to identify and accurately measure defects  
8 and anomalies;

9           (3) develop inspection techniques for pipelines  
10 that cannot accommodate the internal inspection de-  
11 vices available on the date of enactment;

12          (4) develop innovative techniques to measure  
13 the structural integrity of pipelines to prevent pipe-  
14 line failures;

15          (5) develop improved materials and coatings for  
16 use in pipelines;

17          (6) improve the capability, reliability, and prac-  
18 ticality of external leak detection devices;

19          (7) identify underground environments that  
20 might lead to shortened service life;

21          (8) enhance safety in pipeline siting and land  
22 use;

23          (9) minimize the environmental impact of pipe-  
24 lines;

1           (10) demonstrate technologies that improve  
2 pipeline safety, reliability, and integrity;

3           (11) provide risk assessment tools for opti-  
4 mizing risk mitigation strategies; and

5           (12) provide highly secure information systems  
6 for controlling the operation of pipelines.

7       (c) AREAS.—In carrying out this section, the Sec-  
8 retary of Transportation, in coordination with the Sec-  
9 retary of Energy, shall consider research and development  
10 on natural gas, crude oil, and petroleum product pipelines  
11 for—

12           (1) early crack, defect, and damage detection,  
13 including real-time damage monitoring;

14           (2) automated internal pipeline inspection sen-  
15 sor systems;

16           (3) land use guidance and set back manage-  
17 ment along pipeline rights-of-way for communities;

18           (4) internal corrosion control;

19           (5) corrosion-resistant coatings;

20           (6) improved cathodic protection;

21           (7) inspection techniques where internal inspec-  
22 tion is not feasible, including measurement of struc-  
23 tural integrity;

24           (8) external leak detection, including portable  
25 real-time video imaging technology, and the advance-



1       ment of computerized control center leak detection  
2       systems utilizing real-time remote field data input;

3           (9) longer life, high strength, non-corrosive  
4       pipeline materials;

5           (10) assessing the remaining strength of exist-  
6       ing pipes;

7           (11) risk and reliability analysis models, to be  
8       used to identify safety improvements that could be  
9       realized in the near term resulting from analysis of  
10      data obtained from a pipeline performance tracking  
11      initiative;

12          (12) identification, monitoring, and prevention  
13      of outside force damage, including satellite surveil-  
14      lance; and

15          (13) any other areas necessary to ensuring the  
16      public safety and protecting the environment.

17      (d) RESEARCH AND DEVELOPMENT PROGRAM  
18      PLAN.—Within 240 days after the date of enactment of  
19      this section, the Secretary of Transportation, in coordina-  
20      tion with the Secretary of Energy and the Pipeline Integ-  
21      rity Technical Advisory Committee, shall prepare and sub-  
22      mit to the Congress a five-year program plan to guide ac-  
23      tivities under this section. In preparing the program plan,  
24      the Secretary shall consult with appropriate representa-  
25      tives of the natural gas, crude oil, and petroleum product

1 pipeline industries to select and prioritize appropriate  
2 project proposals. The Secretary may also seek the advice  
3 of utilities, manufacturers, institutions of higher learning,  
4 Federal agencies, the pipeline research institutions, na-  
5 tional laboratories, State pipeline safety officials, environ-  
6 mental organizations, pipeline safety advocates, and pro-  
7 fessional and technical societies.

8       (e) IMPLEMENTATION.—The Secretary of Transpor-  
9 tation shall have primary responsibility for ensuring the  
10 five-year plan provided for in subsection (d) is imple-  
11 mented as intended by this section. In carrying out the  
12 research, development, and demonstration activities under  
13 this section, the Secretary of Transportation and the Sec-  
14 retary of Energy may use, to the extent authorized under  
15 applicable provisions of law, contracts, cooperative agree-  
16 ments, cooperative research and development agreements  
17 under the Stevenson-Wydler Technology Innovation Act of  
18 1980 (15 U.S.C. 3701 et seq.), grants, joint ventures,  
19 other transactions, and any other form of agreement avail-  
20 able to the Secretary consistent with the recommendations  
21 of the Advisory Committee.

22       (f) REPORTS TO CONGRESS.—The Secretary of  
23 Transportation shall report to the Congress annually as  
24 to the status and results to date of the implementation  
25 of the research and development program plan. The report

1 shall include the activities of the Departments of Trans-  
2 portation and Energy, the natural laboratories, univer-  
3 sities, and any other research organizations, including in-  
4 dustry research organizations.

5 (g) PIPELINE INTEGRITY TECHNICAL ADVISORY  
6 COMMITTEE.—

7 (1) ESTABLISHMENT.—The Secretary of Trans-  
8 portation shall enter into appropriate arrangements  
9 with the National Academy of Sciences to establish  
10 and manage the Pipeline Integrity Technical Advi-  
11 sory Committee for the purpose of advising the Sec-  
12 retary of Transportation and the Secretary of En-  
13 ergy on the development and implementation of the  
14 research and development program plan under sub-  
15 section (d). The Advisory Committee shall have an  
16 ongoing role in evaluating the progress and results  
17 of the research, development, and demonstration  
18 carried out under this section.

19 (2) MEMBERSHIP.—The National Academy of  
20 Sciences shall appoint the members of the Pipeline  
21 Integrity Technical Advisory Committee after con-  
22 sultation with the Secretary of Transportation and  
23 the Secretary of Energy. Members appointed to the  
24 Advisory Committee should have the necessary quali-

1       fications to provide technical contributions to the  
2       purposes of the Advisory Committee.

3       (h) AUTHORIZATION OF APPROPRIATIONS.—

4           (1) There are authorized to be appropriated to  
5       the Secretary of Transportation for carrying out this  
6       section \$3,000,000, to be derived from user fees  
7       under section 60301 of title 49, United States Code,  
8       for each of the fiscal years 2003 through 2006.

9           (2) Of the amounts available in the Oil Spill Li-  
10      ability Trust Fund established by section 9509 of  
11      the Internal Revenue Code of 1986 (26 U.S.C.  
12      9509), \$3,000,000 shall be transferred to the Sec-  
13      retary of Transportation, as provided in appropria-  
14      tion Acts, to carry out programs for detection, pre-  
15      vention and mitigation of oil spills under this section  
16      for each of the fiscal years 2003 through 2006.

17          (3) There are authorized to be appropriated to  
18      the Secretary of Energy for carrying out this section  
19      such sums as may be necessary for each of the fiscal  
20      years 2003 through 2006.

21   **SEC. 1263. RESEARCH AND DEMONSTRATION FOR REMEDI-**  
22                           **ATION OF GROUNDWATER FROM ENERGY AC-**  
23                           **TIVITIES.**

24          (a) IN GENERAL.—The Secretary shall carry out a  
25      research, development, demonstration, and technology de-

1 ployment program to improve methods for environmental  
2 restoration of groundwater contaminated by energy activi-  
3 ties, including oil and gas production, surface and under-  
4 ground mining of coal, and in-situ extraction of energy  
5 resources.

6 (b) AUTHORIZATION OF APPROPRIATIONS.—There  
7 are authorized to be appropriated to the Secretary to carry  
8 out this section \$10,000,000 for each of fiscal years 2003  
9 through 2006.

10 **TITLE XIII—CLIMATE CHANGE-**  
11 **RELATED RESEARCH AND DE-**  
12 **VELOPMENT**

13 **Subtitle A—Department of Energy**  
14 **Programs**

15 **SEC. 1301. PROGRAM GOALS.**

16 The goals of the research, development, demonstra-  
17 tion, and technology deployment programs under this sub-  
18 title shall be to—

19 (1) provide a sound scientific understanding of  
20 the human and natural forces that influence the  
21 Earth's climate system, particularly those forces re-  
22 lated to energy production and use;

23 (2) help mitigate climate change from human  
24 activities related to energy production and use; and

1           (3) reduce, avoid, or sequester emissions of  
2       greenhouse gases in furtherance of the goals of the  
3       United National Framework Convention on Climate  
4       Change, done at New York on May 9, 1992, in a  
5       manner that does not result in serious harm to the  
6       U.S. economy.

7   **SEC. 1302. DEPARTMENT OF ENERGY GLOBAL CHANGE**  
8                   **SCIENCE RESEARCH.**

9       (a) PROGRAM DIRECTION.—The Secretary, acting  
10   through the Office of Science, shall conduct a comprehen-  
11   sive research program to understand and address the ef-  
12   fects of energy production and use on the global climate  
13   system.

14       (b) PROGRAM ELEMENTS.—

15           (1) CLIMATE MODELING.—The Secretary  
16   shall—

17               (A) conduct observational and analytical  
18       research to acquire and interpret the data need-  
19       ed to describe the radiation balance from the  
20       surface of the Earth to the top of the atmos-  
21       phere;

22               (B) determine the factors responsible for  
23       the Earth's radiation balance and incorporate  
24       improved understanding of such factors in cli-  
25       mate models;

1 (C) improve the treatment of aerosols and  
2 clouds in climate models;

3 (D) reduce the uncertainty in decade-to-  
4 century model-based projections of climate  
5 change; and

6 (E) increase the availability and utility of  
7 climate change simulations to researchers and  
8 policy makers interested in assessing the rela-  
9 tionship between energy and climate change.

10 (2) CARBON CYCLE.—The Secretary shall—

11 (A) carry out field research and modeling  
12 activities—

13 (i) to understand and document the  
14 net exchange of carbon dioxide between  
15 major terrestrial ecosystems and the at-  
16 mosphere; or

17 (ii) to evaluate the potential of pro-  
18 posed methods of carbon sequestration;

19 (B) develop and test carbon cycle models;  
20 and

21 (C) acquire data and develop and test  
22 models to simulate and predict the transport,  
23 transformation, and fate of energy-related emis-  
24 sions in the atmosphere.

1           (3) ECOLOGICAL PROCESSES.—The Secretary  
2       shall carry out long-term experiments of the re-  
3       sponse of intact terrestrial ecosystems to—

4                   (A) alterations in climate and atmospheric  
5       composition; or

6                   (B) land-use changes that affect ecosystem  
7       extent and function.

8           (4) INTEGRATED ASSESSMENT.—The Secretary  
9       shall develop and improve methods and tools for in-  
10      tegrated analyses of the climate change system from  
11      emissions of aerosols and greenhouse gases to the  
12      consequences of these emissions on climate and the  
13      resulting effects of human-induced climate change  
14      on economic and social systems, with emphasis on  
15      critical gaps in integrated assessment modeling, in-  
16      cluding modeling of technology innovation and diffu-  
17      sion and the development of metrics of economic  
18      costs of climate change and policies for mitigating or  
19      adapting to climate change.

20      (c) AUTHORIZATION OF APPROPRIATIONS.—From  
21      amounts authorized under section 1440(c), there are au-  
22      thorized to be appropriated to the Secretary for carrying  
23      out activities under this section—

24                   (1) \$150,000,000 for fiscal year 2003;

25                   (2) \$175,000,000 for fiscal year 2004;



1 (3) \$200,000,000 for fiscal year 2005; and

2 (4) \$230,000,000 for fiscal year 2006.

3 (d) LIMITATION ON FUNDS.—Funds authorized to be  
4 appropriated under this section shall not be used for the  
5 development, demonstration, or deployment of technology  
6 to reduce, avoid, or sequester greenhouse gas emissions.

7 **SEC. 1303. AMENDMENTS TO THE FEDERAL NONNUCLEAR**  
8 **RESEARCH AND DEVELOPMENT ACT OF 1974.**

9 Section 6 of the Federal Nonnuclear Energy Re-  
10 search and Development Act of 1974 (42 U.S.C. 5905)  
11 is amended—

12 (1) in subsection (a)—

13 (A) in paragraph (2), by striking “and” at  
14 the end;

15 (B) in paragraph (3) by striking the period  
16 at the end and inserting “, and”; and

17 (C) by adding at the end the following:

18 “(4) solutions to the effective management of  
19 greenhouse gas emissions in the long term by the de-  
20 velopment of technologies and practices designed  
21 to—

22 “(A) reduce or avoid anthropogenic emis-  
23 sions of greenhouse gases;

24 “(B) remove and sequester greenhouse  
25 gases from emissions streams; and

1           “(C) remove and sequester greenhouse  
2 gases from the atmosphere.”; and

3 (2) in subsection (b)—

4           (A) in paragraph (2), by striking “sub-  
5 section (a)(1) through (3)” and inserting  
6 “paragraphs (1) through (4) of subsection (a)”;  
7 and

8           (B) in paragraph (3)—

9           (i) in subparagraph (R), by striking  
10 “and” at the end;

11           (ii) in subparagraph (S), by striking  
12 the period at the end and inserting “;  
13 and”; and

14           (iii) by adding at the end the fol-  
15 lowing:

16           “(T) to pursue a long-term climate tech-  
17 nology strategy designed to demonstrate a vari-  
18 ety of technologies by which stabilization of  
19 greenhouse gases might be best achieved, in-  
20 cluding accelerated research, development, dem-  
21 onstration and deployment of—

22           “(i) renewable energy systems;

23           “(ii) advanced fossil energy tech-  
24 nology;

1 “(iii) advanced nuclear power plant  
2 design;

3 “(iv) fuel cell technology for residen-  
4 tial, industrial and transportation applica-  
5 tions;

6 “(v) carbon sequestration practices  
7 and technologies, including agricultural  
8 and forestry practices that store and se-  
9 quester carbon;

10 “(vi) efficient electrical generation,  
11 transmission and distribution technologies;  
12 and

13 “(vii) efficient end use energy tech-  
14 nologies.”.

15 **Subtitle B—Department of**  
16 **Agriculture Programs**

17 **SEC. 1311. CARBON SEQUESTRATION BASIC AND APPLIED**  
18 **RESEARCH.**

19 (a) BASIC RESEARCH.—

20 (1) IN GENERAL.—The Secretary of Agriculture  
21 shall carry out research in the areas of soil science  
22 that promote understanding of—

23 (A) the net sequestration of organic carbon  
24 in soil; and

1 (B) net emissions of other greenhouse  
2 gases from agriculture.

3 (2) AGRICULTURAL RESEARCH SERVICE.—The  
4 Secretary of Agriculture, acting through the Agricul-  
5 tural Research Service, shall collaborate with other  
6 Federal agencies in developing data and carrying out  
7 research addressing soil carbon fluxes (losses and  
8 gains) and net emissions of methane and nitrous  
9 oxide from cultivation and animal management ac-  
10 tivities.

11 (3) COOPERATIVE STATE RESEARCH EXTEN-  
12 SION AND EDUCATION SERVICE.—

13 (A) IN GENERAL.—The Secretary of Agri-  
14 culture, acting through the Cooperative State  
15 Research Extension and Education Service,  
16 shall establish a competitive grant program to  
17 carry out research on the matters described in  
18 paragraph (1) in land grant universities and  
19 other research institutions.

20 (B) CONSULTATION ON RESEARCH TOP-  
21 ICS.—Before issuing a request for proposals for  
22 basic research under paragraph (1), the Coop-  
23 erative State Research, Education, and Exten-  
24 sion Service shall consult with the Agricultural  
25 Research Service to ensure that proposed re-

1 search areas are complementary with and do  
2 not duplicate research projects underway at the  
3 Agricultural Research Service or other Federal  
4 agencies.

5 (b) APPLIED RESEARCH.—

6 (1) IN GENERAL.—The Secretary of Agriculture  
7 shall carry out applied research in the areas of soil  
8 science, agronomy, agricultural economics and other  
9 agricultural sciences to—

10 (A) promote understanding of—

11 (i) how agricultural and forestry prac-  
12 tices affect the sequestration of organic  
13 and inorganic carbon in soil and net emis-  
14 sions of other greenhouse gases;

15 (ii) how changes in soil carbon pools  
16 are cost-effectively measured, monitored,  
17 and verified; and

18 (iii) how public programs and private  
19 market approaches can be devised to incor-  
20 porate carbon sequestration in a broader  
21 societal greenhouse gas emission reduction  
22 effort;

23 (B) develop methods for establishing base-  
24 lines for measuring the quantities of carbon and  
25 other greenhouse gases sequestered; and

1 (C) evaluate leakage and performance  
2 issues.

3 (2) REQUIREMENTS.—To the maximum extent  
4 practicable, applied research under paragraph (1)  
5 shall—

6 (A) draw on existing technologies and  
7 methods; and

8 (B) strive to provide methodologies that  
9 are accessible to a nontechnical audience.

10 (3) MINIMIZATION OF ADVERSE ENVIRON-  
11 MENTAL IMPACTS.—All applied research under para-  
12 graph (1) shall be conducted with an emphasis on  
13 minimizing adverse environmental impacts.

14 (4) NATURAL RESOURCES CONSERVATION  
15 SERVICE.—The Secretary of Agriculture, acting  
16 through the Natural Resources Conservation Service,  
17 shall collaborate with other Federal agencies, includ-  
18 ing the National Institute of Standards and Tech-  
19 nology, in developing new measuring techniques and  
20 equipment or adapting existing techniques and  
21 equipment to enable cost-effective and accurate mon-  
22 itoring and verification, for a wide range of agricul-  
23 tural and forestry practices, of—

24 (A) changes in soil carbon content in agri-  
25 cultural soils, plants, and trees; and

1 (B) net emissions of other greenhouse  
2 gases.

3 (5) COOPERATIVE STATE RESEARCH EXTEN-  
4 SION AND EDUCATION SERVICE.—

5 (A) IN GENERAL.—The Secretary of Agri-  
6 culture, acting through the Cooperative State  
7 Research Extension and Education Service,  
8 shall establish a competitive grant program to  
9 encourage research on the matters described in  
10 paragraph (1) by land grant universities and  
11 other research institutions.

12 (B) CONSULTATION ON RESEARCH TOP-  
13 ICS.—Before issuing a request for proposals for  
14 applied research under paragraph (1), the Co-  
15 operative State Research, Education, and Ex-  
16 tension Service shall consult with the National  
17 Resources Conservation Service and the Agri-  
18 cultural Research Service to ensure that pro-  
19 posed research areas are complementary with  
20 and do not duplicate research projects under-  
21 way at the Agricultural Research Service or  
22 other Federal agencies.

23 (c) RESEARCH CONSORTIA.—

24 (1) IN GENERAL.—The Secretary of Agriculture  
25 may designate not more than 2 research consortia to

1 carry out research projects under this section, with  
2 the requirement that the consortia propose to con-  
3 duct basic, research under subsection (a) and ap-  
4 plied research under subsection (b).

5 (2) SELECTION.—The consortia shall be se-  
6 lected in a competitive manner by the Cooperative  
7 State Research, Education, and Extension Service.

8 (3) ELIGIBLE CONSORTIUM PARTICIPANTS.—  
9 Entities eligible to participate in a consortium  
10 include—

11 (A) land grant colleges and universities;

12 (B) private research institutions;

13 (C) State geological surveys;

14 (D) agencies of the Department of Agri-  
15 culture;

16 (E) research centers of the National Aero-  
17 nautics and Space Administration and the De-  
18 partment of Energy;

19 (F) other Federal agencies;

20 (G) representatives of agricultural busi-  
21 nesses and organizations with demonstrated ex-  
22 pertise in these areas; and

23 (H) representatives of the private sector  
24 with demonstrated expertise in these areas.



1           (4) RESERVATION OF FUNDING.—If the Sec-  
2       retary of Agriculture designates 1 or 2 consortia, the  
3       Secretary of Agriculture shall reserve for research  
4       projects carried out by the consortium or consortia  
5       not more than 25 percent of the amounts made  
6       available to carry out this section for a fiscal year.

7       (d) STANDARDS OF PRECISION.—

8           (1) CONFERENCE.—Not later than 3 years  
9       after the date of enactment of this subtitle, the Sec-  
10      retary of Agriculture, acting through the Agricul-  
11      tural Research Service and in consultation with the  
12      Natural Resources Conservation Service, shall con-  
13      vene a conference of key scientific experts on carbon  
14      sequestration and measurement techniques from var-  
15      ious sectors (including the government, academic,  
16      and private sectors) to—

17                (A) discuss benchmark standards of preci-  
18               sion for measuring soil carbon content and net  
19               emissions of other greenhouse gases;

20                (B) designate packages of measurement  
21               techniques and modeling approaches to achieve  
22               a level of precision agreed on by the partici-  
23               pants in the conference; and

24                (C) evaluate results of analyses on base-  
25               line, permanence, and leakage issues.

1           (2) DEVELOPMENT OF BENCHMARK STAND-  
2 ARDS.—

3           (A) IN GENERAL.—The Secretary shall de-  
4 velop benchmark standards for measuring the  
5 carbon content of soils and plants (including  
6 trees) based on—

7                   (i) information from the conference  
8 under paragraph (1);

9                   (ii) research conducted under this sec-  
10 tion; and

11                   (iii) other information available to the  
12 Secretary.

13           (B) OPPORTUNITY FOR PUBLIC COM-  
14 MENT.—The Secretary shall provide an oppor-  
15 tunity for the public to comment on benchmark  
16 standards developed under subparagraph (A).

17           (3) REPORT.—Not later than 180 days after  
18 the conclusion of the conference under paragraph  
19 (1), the Secretary of Agriculture shall submit to the  
20 Committee on Agriculture of the House of Rep-  
21 resentatives and the Committee on Agriculture, Nu-  
22 trition, and Forestry of the Senate a report on the  
23 results of the conference.

24           (e) AUTHORIZATION OF APPROPRIATIONS.—

9 SEC. 1312. CARBON SEQUESTRATION DEMONSTRATION  
10 PROJECTS AND OUTREACH.

(1) DEVELOPMENT OF MONITORING PROGRAMS.—

(A) IN GENERAL.—The Secretary of Agriculture, acting through the Natural Resources Conservation Service and in cooperation with local extension agents, experts from land grant universities, and other local agricultural or conservation organizations, shall develop user-friendly, programs that combine measurement tools and modeling techniques into integrated packages to monitor the carbon sequestering benefits of conservation practices and net changes in greenhouse gas emissions.

1 (B) BENCHMARK LEVELS OF PRECISION.—

2 The programs developed under subparagraph  
3 (A) shall strive to achieve benchmark levels of  
4 precision in measurement in a cost-effective  
5 manner.

6 (2) PROJECTS.—

7 (A) IN GENERAL.—The Secretary of Agri-  
8 culture, acting through the Farm Service Agen-  
9 cy, shall establish a program under which  
10 projects use the monitoring programs developed  
11 under paragraph (1) to demonstrate the feasi-  
12 bility of methods of measuring, verifying, and  
13 monitoring—

14 (i) changes in organic carbon content  
15 and other carbon pools in agricultural  
16 soils, plants, and trees; and

17 (ii) net changes in emissions of other  
18 greenhouse gases.

19 (B) EVALUATION OF IMPLICATIONS.—The  
20 projects under subparagraph (A) shall include  
21 evaluation of the implications for reassessed  
22 baselines, carbon or other greenhouse gas leak-  
23 age, and permanence of sequestration.

24 (C) SUBMISSION OF PROPOSALS.—Pro-  
25 posals for projects under subparagraph (A)

1 shall be submitted by the appropriate agency of  
2 each State, in cooperation with interested local  
3 jurisdictions and State agricultural and con-  
4 servation organizations.

5 (D) LIMITATION.—Not more than 10  
6 projects under subparagraph (A) may be ap-  
7 proved in conjunction with applied research  
8 projects under section 1331(b) until benchmark  
9 measurement and assessment standards are es-  
10 tablished under section 1331(d).

11 (b) OUTREACH.—

12 (1) IN GENERAL.—The Cooperative State Re-  
13 search Extension and Education Service shall widely  
14 disseminate information about the economic and en-  
15 vironmental benefits that can be generated by adop-  
16 tion of conservation practices (including benefits  
17 from increased sequestration of carbon and reduced  
18 emission of other greenhouse gases.

19 (2) PROJECT RESULTS.—The Cooperative State  
20 Research Extension and Education Service shall in-  
21 form farmers, ranchers, and State agricultural and  
22 energy offices in each State of—

23 (A) the results of demonstration projects  
24 under subsection (a)(2) in the State; and

1 (B) the ways in which the methods dem-  
 2 onstrated in the projects might be applicable to  
 3 the operations of those farmers and ranchers.

4 (3) POLICY OUTREACH.—On a periodic basis,  
 5 the Cooperative State Research Extension and Edu-  
 6 cation Service shall disseminate information on the  
 7 policy nexus between global climate change mitiga-  
 8 tion strategies and agriculture, so that farmers and  
 9 ranchers may better understand the global implica-  
 10 tions of the activities of farmers and ranchers.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—

12 (1) IN GENERAL.—There are authorized to be  
 13 appropriated to carry out this section \$10,000,000  
 14 for each of fiscal years 2003 through 2006.

15 (2) ALLOCATION.—Of the amounts made avail-  
 16 able to carry out this section for a fiscal year, at  
 17 least 50 percent shall be allocated for demonstration  
 18 projects under subsection (a)(2).

19 **Subtitle C—Clean Energy**  
 20 **Technology Exports Program**

21 **SEC. 1321. CLEAN ENERGY TECHNOLOGY EXPORTS PRO-**  
 22 **GRAM.**

23 (a) DEFINITIONS.—In this section:

24 (1) CLEAN ENERGY TECHNOLOGY.—The term  
 25 “clean energy technology” means an energy supply

1 or end-use technology that, over its lifecycle and  
2 compared to a similar technology already in commer-  
3 cial use in developing countries, countries in transi-  
4 tion, and other partner countries—

5 (A) emits substantially lower levels of pol-  
6 lutants or greenhouse gases; and

7 (B) may generate substantially smaller or  
8 less toxic volumes of solid or liquid waste.

9 (2) INTERAGENCY WORKING GROUP.—The term  
10 “interagency working group” means the Interagency  
11 Working Group on Clean Energy Technology Ex-  
12 ports established under subsection (b).

13 (b) INTERAGENCY WORKING GROUP.—

14 (1) ESTABLISHMENT.—Not later than 90 days  
15 after the date of enactment of this section, the Sec-  
16 retary of Energy, the Secretary of Commerce, and  
17 the Administrator of the U.S. Agency for Inter-  
18 national Development shall jointly establish a Inter-  
19 agency Working Group on Clean Energy Technology  
20 Exports. The interagency working group will focus  
21 on opening and expanding energy markets and  
22 transferring clean energy technology to the devel-  
23 oping countries, countries in transition, and other  
24 partner countries that are expected to experience,  
25 over the next 20 years, the most significant growth

1 in energy production and associated greenhouse gas  
2 emissions, including through technology transfer  
3 programs under the Framework Convention on Cli-  
4 mate Change, other international agreements, and  
5 relevant Federal efforts.

6 (2) MEMBERSHIP.—The interagency working  
7 group shall be jointly chaired by representatives ap-  
8 pointed by the agency heads under paragraph (1)  
9 and shall also include representatives from the De-  
10 partment of State, the Department of Treasury, the  
11 Environmental Protection Agency, the Export-Im-  
12 port Bank, the Overseas Private Investment Cor-  
13 poration, the Trade and Development Agency, and  
14 other federal agencies as deemed appropriate by all  
15 three agency heads under paragraph (1).

16 (3) DUTIES.—The interagency working group  
17 shall—

18 (A) analyze technology, policy, and market  
19 opportunities for international development,  
20 demonstration, and deployment of clean energy  
21 technology;

22 (B) investigate issues associated with  
23 building capacity to deploy clean energy tech-  
24 nology in developing countries, countries in



1 transition, and other partner countries,  
2 including—

3 (i) energy-sector reform;

4 (ii) creation of open, transparent, and  
5 competitive markets for energy tech-  
6 nologies;

7 (iii) availability of trained personnel  
8 to deploy and maintain the technology; and

9 (iv) demonstration and cost-buydown  
10 mechanisms to promote first adoption of  
11 the technology;

12 (C) examine relevant trade, tax, inter-  
13 national, and other policy issues to assess what  
14 policies would help open markets and improve  
15 U.S. clean energy technology exports in support  
16 of the following areas:

17 (i) enhancing energy innovation and  
18 cooperation, including energy sector and  
19 market reform, capacity building, and fi-  
20 nancing measures;

21 (ii) improving energy end-use effi-  
22 ciency technologies, including buildings and  
23 facilities, vehicle, industrial, and co-genera-  
24 tion technology initiatives; and

1 (iii) promoting energy supply tech-  
2 nologies, including fossil, nuclear, and re-  
3 newable technology initiatives;

4 (D) establish an advisory committee involv-  
5 ing the private sector and other interested  
6 groups on the export and deployment of clean  
7 energy technology;

8 (E) monitor each agency's progress to-  
9 wards meeting goals in the 5-year strategic plan  
10 submitted to Congress pursuant to the Energy  
11 and Water Development Appropriations Act,  
12 2001, and the Energy and Water Development  
13 Appropriations Act, 2002;

14 (F) make recommendations to heads of ap-  
15 propriate Federal agencies on ways to stream-  
16 line federal programs and policies improve each  
17 agency's role in the international development,  
18 demonstration, and deployment of clean energy  
19 technology;

20 (G) make assessments and recommenda-  
21 tions regarding the distinct technological, mar-  
22 ket, regional, and stakeholder challenges nec-  
23 essary to carry out the program; and

24 (H) recommend conditions and criteria  
25 that will help ensure that United States funds

1           promote sound energy policies in participating  
2           countries while simultaneously opening their  
3           markets and exporting United States energy  
4           technology.

5           (c) FEDERAL SUPPORT FOR CLEAN ENERGY TECH-  
6           NOLOGY TRANSFER.—Notwithstanding any other provi-  
7           sion of law, each federal agency or government corporation  
8           carrying out an assistance program in support of the ac-  
9           tivities of United States persons in the environment or en-  
10          ergy sector of a developing country, country in transition,  
11          or other partner country shall support, to the maximum  
12          extent practicable, the transfer of United States clean en-  
13          ergy technology as part of that program.

14          (d) ANNUAL REPORT.—Not later than April 1, 2002,  
15          and each year thereafter, the Interagency Working Group  
16          shall submit a report to Congress on its activities during  
17          the preceding calendar year. The report shall include a  
18          description of the technology, policy, and market opportu-  
19          nities for international development, demonstration, and  
20          deployment of clean energy technology investigated by the  
21          Interagency Working Group in that year, as well as any  
22          policy recommendations to improve the expansion of clean  
23          energy markets and U.S. clean energy technology exports.

24          (e) REPORT ON USE OF FUNDS.—Not later than Oc-  
25          tober 1, 2002, and each year thereafter, the Secretary of

1 State, in consultation with other federal agencies, shall  
2 submit a report to Congress indicating how United States  
3 funds appropriated for clean energy technology exports  
4 and other relevant federal programs are being directed in  
5 a manner that promotes sound energy policy commitments  
6 in developing countries, countries in transition, and other  
7 partner countries, including efforts pursuant to multi-lat-  
8 eral environmental agreements.

9 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the departments,  
11 agencies, and entities of the United States described in  
12 subsection (b) such sums as may be necessary to support  
13 the transfer of clean energy technology, consistent with  
14 the subsidy codes of the World Trade Organization, as  
15 part of assistance programs carried out by those depart-  
16 ments, agencies, and entities in support of activities of  
17 United States persons in the energy sector of a developing  
18 country, country in transition, or other partner country.

19 **SEC. 1322. INTERNATIONAL ENERGY TECHNOLOGY DE-**  
20 **PLOYMENT PROGRAM.**

21 (a) IN GENERAL.—Section 1608 of the Energy Policy  
22 Act of 1992 (42 U.S.C. 13387) is amended by striking  
23 subsection (l) and inserting the following:

24 “(l) INTERNATIONAL ENERGY TECHNOLOGY DE-  
25 PLOYMENT PROGRAM.—

1 “(1) DEFINITIONS.—In this subsection:

2 “(A) INTERNATIONAL ENERGY DEPLOY-  
3 MENT PROJECT.—The term “international en-  
4 ergy deployment project” means a project to  
5 construct an energy production facility outside  
6 the United States—

7 “(i) the output of which will be con-  
8 sumed outside the United States; and

9 “(ii) the deployment of which will re-  
10 sult in a greenhouse gas reduction per unit  
11 of energy produced when compared to the  
12 technology that would otherwise be  
13 implemented—

14 “(I) 10 percentage points or  
15 more, in the case of a unit placed in  
16 service before January 1, 2010;

17 “(II) 20 percentage points or  
18 more, in the case of a unit placed in  
19 service after December 31, 2009, and  
20 before January 1, 2020; or

21 “(III) 30 percentage points or  
22 more, in the case of a unit placed in  
23 service after December 31, 2019, and  
24 before January 1, 2030.

1           “(B) QUALIFYING INTERNATIONAL EN-  
2           ERGY DEPLOYMENT PROJECT.—The term  
3           “qualifying international energy deployment  
4           project” means an international energy deploy-  
5           ment project that—

6                   “(i) is submitted by a United States  
7                   firm to the Secretary in accordance with  
8                   procedures established by the Secretary by  
9                   regulation;

10                   “(ii) uses technology that has been  
11                   successfully developed or deployed in the  
12                   United States;

13                   “(iii) meets the criteria of subsection  
14                   (k);

15                   “(iv) is approved by the Secretary,  
16                   with notice of the approval being published  
17                   in the Federal Register; and

18                   “(v) complies with such terms and  
19                   conditions as the Secretary establishes by  
20                   regulation.

21           “(C) UNITED STATES.—For purposes of  
22           this paragraph, the term “United States”, when  
23           used in a geographical sense, means the 50  
24           States, the District of Columbia, Puerto Rico,  
25           Guam, the Virgin Islands, American Samoa,

1 and the Commonwealth of the Northern Mar-  
2 iana Islands.

3 “(2) PILOT PROGRAM FOR FINANCIAL ASSIST-  
4 ANCE.—

5 “(A) IN GENERAL.—Not later than 180  
6 days after the date of enactment of this sub-  
7 section, the Secretary shall, by regulation, pro-  
8 vide for a pilot program for financial assistance  
9 for qualifying international energy deployment  
10 projects.

11 “(B) SELECTION CRITERIA.—After con-  
12 sultation with the Secretary of State, the Sec-  
13 retary of Commerce, and the United States  
14 Trade Representative, the Secretary shall select  
15 projects for participation in the program based  
16 solely on the criteria under this title and with-  
17 out regard to the country in which the project  
18 is located.

19 “(C) FINANCIAL ASSISTANCE.—

20 “(i) IN GENERAL.—A United States  
21 firm that undertakes a qualifying inter-  
22 national energy deployment project that is  
23 selected to participate in the pilot program  
24 shall be eligible to receive a loan or a loan  
25 guarantee from the Secretary.

1           “(ii) RATE OF INTEREST.—The rate  
2 of interest of any loan made under clause  
3 (i) shall be equal to the rate for Treasury  
4 obligations then issued for periods of com-  
5 parable maturities.

6           “(iii) AMOUNT.—The amount of a  
7 loan or loan guarantee under clause (i)  
8 shall not exceed 50 percent of the total  
9 cost of the qualified international energy  
10 deployment project.

11          “(iv) DEVELOPED COUNTRIES.—  
12 Loans or loan guarantees made for  
13 projects to be located in a developed coun-  
14 try, as listed in Annex I of the United Na-  
15 tions Framework Convention on Climate  
16 Change, shall require at least a 50 percent  
17 contribution towards the total cost of the  
18 loan or loan guarantee by the host country.

19          “(v) DEVELOPING COUNTRIES.—  
20 Loans or loan guarantees made for  
21 projects to be located in a developing coun-  
22 try (those countries not listed in Annex I  
23 of the United Nations Framework Conven-  
24 tion on Climate Change) shall require at  
25 least a 10 percent contribution towards the



1 total cost of the loan or loan guarantee by  
2 the host country.

3 “(vi) CAPACITY BUILDING RE-  
4 SEARCH.—Proposals made for projects to  
5 be located in a developing country may in-  
6 clude a research component intended to  
7 build technological capacity within the host  
8 country. Such research must be related to  
9 the technologies being deployed and must  
10 involve both an institution in the host  
11 country and an industry, university or na-  
12 tional laboratory participant from the  
13 United States. The host institution shall  
14 contribute at least 50 percent of funds pro-  
15 vided for the capacity building research.

16 “(D) COORDINATION WITH OTHER PRO-  
17 GRAMS.—A qualifying international energy de-  
18 ployment project funded under this section shall  
19 not be eligible as a qualifying clean coal tech-  
20 nology under section 415 of the Clean Air Act  
21 (42 U.S.C. 7651n).

22 “(E) REPORT.—Not later than 5 years  
23 after the date of enactment of this subsection,  
24 the Secretary shall submit to the President a  
25 report on the results of the pilot projects.

1           “(F) RECOMMENDATION.—Not later than  
 2           60 days after receiving the report under sub-  
 3           paragraph (E), the President shall submit to  
 4           Congress a recommendation, based on the re-  
 5           sults of the pilot projects as reported by the  
 6           Secretary of Energy, concerning whether the fi-  
 7           nancial assistance program under this section  
 8           should be continued, expanded, reduced, or  
 9           eliminated.

10          “(3) AUTHORIZATION OF APPROPRIATIONS.—  
 11          There are authorized to be appropriated to the Sec-  
 12          retary carry out this section \$100,000,000 for each  
 13          of fiscal years 2003 through 2011, to remain avail-  
 14          able until expended.”.

15               **Subtitle D—Climate Change**  
 16               **Science and Information**

17   **PART I—AMENDMENTS TO THE GLOBAL CHANGE**  
 18               **RESEARCH ACT OF 1990**

19   **SEC. 1331. AMENDMENT OF GLOBAL CHANGE RESEARCH**  
 20               **ACT OF 1990.**

21          Except as otherwise expressly provided, whenever in  
 22          this subtitle an amendment or repeal is expressed in terms  
 23          of an amendment to, or repeal of, a section or other provi-  
 24          sion, the reference shall be considered to be made to a

1 section or other provision of the Global Change Research  
2 Act of 1990 (15 U.S.C. 2921 et seq.).

3 **SEC. 1332. CHANGES IN DEFINITIONS.**

4 Paragraph (1) of section 2 (15 U.S.C. 2921) is  
5 amended by striking “Earth and” inserting “Climate  
6 and”.

7 **SEC. 1333. CHANGE IN COMMITTEE NAME.**

8 Section 102 (15 U.S.C. 2932) is amended—

9 (1) by striking “EARTH AND” in the section  
10 heading and inserting “CLIMATE AND”; and

11 (2) by striking “Earth and” in subsection (a)  
12 and inserting “Climate and”.

13 **SEC. 1334. CHANGE IN NATIONAL GLOBAL CHANGE RE-**  
14 **SEARCH PLAN.**

15 Section 104 (15 U.S.C. 2934) is amended—

16 (1) by adding at the end of subsection (c) the  
17 following:

18 “(6) Methods for integrating information to  
19 provide predictive tools for planning and decision  
20 making by governments, communities and the pri-  
21 vate sector.”;

22 (2) by inserting “local, State, and Federal” be-  
23 fore “policy makers” in subsection (d)(3);

24 (3) by striking “and” in subsection (d)(2);

1           (4) by striking “change.” in subsection (d)(3)  
2           and inserting “change; and”;

3           (5) by adding at the end of subsection (d) the  
4           following:

5           “(4) establish a common assessment and mod-  
6           eling framework that may be used in both research  
7           and operations to predict and assess the vulner-  
8           ability of natural and managed ecosystems and of  
9           human society in the context of other environmental  
10          and social changes.”; and

11          (6) by adding at the end the following:

12          “(g) STRATEGIC PLAN; REVISED IMPLEMENTATION  
13          PLAN.—The Chairman of the Council, through the Com-  
14          mittee, shall develop a strategic plan for the United States  
15          Global Climate Change Research Program for the 10-year  
16          period beginning in 2002 and submit the plan to the Con-  
17          gress within 180 days after the date of enactment of the  
18          Global Climate Change Act of 2002. The Chairman,  
19          through the Committee, shall also submit a revised imple-  
20          mentation plan under subsection (a).”.

21       **SEC. 1335. INTEGRATED PROGRAM OFFICE.**

22          Section 105 (15 U.S.C. 2935) is amended—

23               (1) by redesignating subsections (a), (b), and  
24               (c) as subsections (b), (c), and (d), respectively; and

1           (2) inserting before subsection (b), as redesign-  
2 nated, the following:

3           “(a) INTEGRATED PROGRAM OFFICE.—

4                 “(1) ESTABLISHMENT.—There is established in  
5 the Office of Science and Technology Policy an inte-  
6 grated program office for the global change research  
7 program.

8                 “(2) ORGANIZATION.—The integrated program  
9 office established under paragraph (1) shall be head-  
10 ed by the associate director with responsibility for  
11 climate change science and technology and shall in-  
12 clude a representative from each Federal agency  
13 participating in the global change research program.

14                 “(3) FUNCTION.—The integrated program of-  
15 fice shall—

16                         “(A) manage, working in conjunction with  
17 the Committee, interagency coordination and  
18 program integration of global change research  
19 activities and budget requests;

20                         “(B) ensure that the activities and pro-  
21 grams of each Federal agency or department  
22 participating in the program address the goals  
23 and objectives identified in the strategic re-  
24 search plan and interagency implementation  
25 plans;

1           “(C) ensure program and budget rec-  
2           ommendations of the Committee are commu-  
3           nicated to the President and are integrated into  
4           the climate change action strategy;

5           “(D) review, solicit, and identify, and allo-  
6           cate funds for, partnership projects that ad-  
7           dress critical research objectives or operational  
8           goals of the program, including projects that  
9           would fill research gaps identified by the pro-  
10          gram, and for which project resources are  
11          shared among at least 2 agencies participating  
12          in the program; and

13          “(E) review and provide recommendations  
14          on, in conjunction with the Committee, all an-  
15          nual appropriations requests from Federal  
16          agencies or departments participating in the  
17          program.

18          “(4) GRANT AUTHORITY.—The Integrated Pro-  
19          gram Office may authorize 1 or more of the depart-  
20          ments or agencies participating in the program to  
21          enter into contracts and make grants, using funds  
22          appropriated for use by the Office of Science and  
23          Technology Policy for the purpose of carrying out  
24          the responsibilities of that Office.

(4) by inserting “and the Integrated Program Office” after “Committee” in paragraph (1) of subsection (d), as redesignated.

15 SEC. 1341. AMENDMENT OF NATIONAL CLIMATE PROGRAM  
16 ACT.

**23 SEC. 1342. CHANGES IN FINDINGS.**

24      Section 2 (15 U.S.C. 2901) is amended—

1           (1) by striking “Weather and climate change  
2       affect” in paragraph (1) and inserting “Weather, cli-  
3       mate change, and climate variability affect public  
4       safety, environmental security, human health,”;

5           (2) by striking “climate” in paragraph (2) and  
6       inserting “climate, including seasonal and decadal  
7       fluctuations,”;

8           (3) by striking “changes.” in paragraph (5) and  
9       inserting “changes and providing free exchange of  
10      meteorological data.”; and

11          (4) by adding at the end the following:

12           “(7) The present rate of advance in research  
13      and development is inadequate and new develop-  
14      ments must be incorporated rapidly into services for  
15      the benefit of the public.

16           “(8) The United States lacks adequate infra-  
17      structure and research to meet national climate  
18      monitoring and prediction needs.”.

19 **SEC. 1343. TOOLS FOR REGIONAL PLANNING.**

20      Section 5(d) (15 U.S.C. 2904(d)) is amended—

21           (1) by redesignating paragraphs (4) through  
22      (9) as paragraphs (5) through (10), respectively;

23           (2) by inserting after paragraph (3) the fol-  
24      lowing:



1           “(4) methods for improving modeling and pre-  
2           dictive capabilities and developing assessment meth-  
3           ods to guide national, regional, and local planning  
4           and decision-making on land use, water hazards, and  
5           related issues;

6           (3) by inserting “sharing,” after “collection,” in  
7           paragraph (5), as redesignated;

8           (4) by striking “experimental” each place it ap-  
9           pears in paragraph (9), as redesignated;

10          (5) by striking “preliminary” in paragraph  
11          (10), as redesignated;

12          (6) by striking “this Act,” the first place it ap-  
13          pears in paragraph (10), as redesignated, and insert-  
14          ing “the Global Climate Change Act of 2002,”; and

15          (7) by striking “this Act,” the second place it  
16          appears in paragraph (10), as redesignated, and in-  
17          serting “that Act,”.

18 **SEC. 1344. AUTHORIZATION OF APPROPRIATIONS.**

19          Section 9 (15 U.S.C. 2908) is amended—

20               (1) by striking “1979,” and inserting “2002,”;

21               (2) by striking “1980,” and inserting “2003,”;

22               (3) by striking “1981,” and inserting “2004,”;

23          and

24               (4) by striking “\$25,500,000” and inserting  
25               “\$75,500,000”.

1 **SEC. 1345. NATIONAL CLIMATE SERVICE PLAN.**

2 The Act (15 U.S.C. 2901 et seq.) is amended by in-  
3 serting after section 5 the following:

4 **“SEC. 6. NATIONAL CLIMATE SERVICE PLAN.**

5 “Within one year after the date of enactment of the  
6 Global Climate Change Act of 2002, the Secretary of Com-  
7 merce shall submit to the Senate Committee on Com-  
8 merce, Science, and Transportation and the House  
9 Science Committee a plan of action for a National Climate  
10 Service under the National Climate Program. The plan  
11 shall set forth recommendations and funding estimates  
12 for—

13 “(1) a national center for operational climate  
14 monitoring and predicting with the functional capac-  
15 ity to monitor and adjust observing systems as nec-  
16 essary to reduce bias;

17 “(2) the design, deployment, and operation of  
18 an adequate national climate observing system that  
19 builds upon existing environmental monitoring sys-  
20 tems and closes gaps in coverage by existing sys-  
21 tems;

22 “(3) the establishment of a national coordinated  
23 modeling strategy, including a national climate mod-  
24 eling center to provide a dedicated capability for cli-  
25 mate modeling and a regular schedule of projections

1 on a long and short term time schedule and at a  
2 range of spatial scales;

3 “(4) improvements in modeling and assessment  
4 capabilities needed to integrate information to pre-  
5 dict regional and local climate changes and impacts;

6 “(5) in coordination with the private sector, im-  
7 proving the capacity to assess the impacts of pre-  
8 dicted and projected climate changes and variations;

9 “(6) a program for long term stewardship,  
10 quality control, development of relevant climate  
11 products, and efficient access to all relevant climate  
12 data, products, and critical model simulations; and

13 “(7) mechanisms to coordinate among Federal  
14 agencies, State, and local government entities and  
15 the academic community to ensure timely and full  
16 sharing and dissemination of climate information  
17 and services, both domestically and internationally.”.

18 **SEC. 1346. INTERNATIONAL PACIFIC RESEARCH AND CO-**  
19 **OPERATION.**

20 The Secretary of Commerce, in cooperation with the  
21 Administrator of the National Aeronautics and Space Ad-  
22 ministration, shall conduct international research in the  
23 Pacific region that will increase understanding of the na-  
24 ture and predictability of climate variability in the Asia-  
25 Pacific sector, including regional aspects of global environ-

1 mental change. Such research activities shall be conducted  
2 in cooperation with other nations of the region. There are  
3 authorized to be appropriated for purposes of this section  
4 \$1,500,000 to the National Oceanic and Atmospheric Ad-  
5 ministration, \$1,500,000 to the National Aeronautics and  
6 Space Administration, and \$500,000 for the Pacific  
7 ENSO Applications Center.

8 **SEC. 1347. REPORTING ON TRENDS.**

9 (a) ATMOSPHERIC MONITORING AND VERIFICATION  
10 PROGRAM.—The Secretary of Commerce, in coordination  
11 with relevant Federal agencies, shall, as part of the Na-  
12 tional Climate Service, establish an atmospheric moni-  
13 toring and verification program utilizing aircraft, satellite,  
14 ground sensors, and modeling capabilities to monitor,  
15 measure, and verify atmospheric greenhouse gas levels,  
16 dates, and emissions. Where feasible, the program shall  
17 measure emissions from identified sources participating in  
18 the reporting system for verification purposes. The pro-  
19 gram shall use measurements and standards that are con-  
20 sistent with those utilized in the greenhouse gas measure-  
21 ment and reporting system established under subsection  
22 (a) and the registry established under section 1102.

23 (b) ANNUAL REPORTING.—The Secretary of Com-  
24 merce shall issue an annual report that identifies green-  
25 house emissions and trends on a local, regional, and na-

1 tional level. The report shall also identify emissions or re-  
2 ductions attributable to individual or multiple sources cov-  
3 ered by the greenhouse gas measurement and reporting  
4 system established under section 1102.

5     **PART III—OCEAN AND COASTAL OBSERVING**  
6                     **SYSTEM**

7     **SEC. 1351. OCEAN AND COASTAL OBSERVING SYSTEM.**

8         (a) ESTABLISHMENT.—The President, through the  
9 National Ocean Research Leadership Council, established  
10 by section 7902(a) of title 10, United States Code, shall  
11 establish and maintain an integrated ocean and coastal ob-  
12 serving system that provides for long-term, continuous,  
13 and real-time observations of the oceans and coasts for  
14 the purposes of—

15             (1) understanding, assessing and responding to  
16 human-induced and natural processes of global  
17 change;

18             (2) improving weather forecasts and public  
19 warnings;

20             (3) strengthening national security and military  
21 preparedness;

22             (4) enhancing the safety and efficiency of ma-  
23 rine operations;

1           (5) supporting efforts to restore the health of  
2           and manage coastal and marine ecosystems and liv-  
3           ing resources;

4           (6) monitoring and evaluating the effectiveness  
5           of ocean and coastal environmental policies;

6           (7) reducing and mitigating ocean and coastal  
7           pollution; and

8           (8) providing information that contributes to  
9           public awareness of the state and importance of the  
10          oceans.

11          (b) COUNCIL FUNCTIONS.—In addition to its respon-  
12         sibilities under section 7902(a) of such title, the Council  
13         shall be responsible for planning and coordinating the ob-  
14         serving system and in carrying out this responsibility  
15         shall—

16                 (1) develop and submit to the Congress, within  
17                 6 months after the date of enactment of this Act, a  
18                 plan for implementing a national ocean and coastal  
19                 observing system that—

20                         (A) uses an end-to-end engineering and de-  
21                         velopment approach to develop a system design  
22                         and schedule for operational implementation;

23                         (B) determines how current and planned  
24                         observing activities can be integrated in a cost-  
25                         effective manner;

1           (C) provides for regional and concept dem-  
2           onstration projects;

3           (D) describes the role and estimated budg-  
4           et of each Federal agency in implementing the  
5           plan;

6           (E) contributes, to the extent practicable,  
7           to the National Global Change Research Plan  
8           under section 104 of the Global Change Re-  
9           search Act of 1990 (15 U.S.C. 2934); and

10          (F) makes recommendations for coordina-  
11          tion of ocean observing activities of the United  
12          States with those of other nations and inter-  
13          national organizations;

14          (2) serve as the mechanism for coordinating  
15          Federal ocean observing requirements and activities;

16          (3) work with academic, State, industry and  
17          other actual and potential users of the observing sys-  
18          tem to make effective use of existing capabilities and  
19          incorporate new technologies;

20          (4) approve standards and protocols for the ad-  
21          ministration of the system, including—

22                (A) a common set of measurements to be  
23                collected and distributed routinely and by uni-  
24                form methods;

1 (B) standards for quality control and as-  
2 sessment of data;

3 (C) design, testing and employment of  
4 forecast models for ocean conditions;

5 (D) data management, including data  
6 transfer protocols and archiving; and

7 (E) designation of coastal ocean observing  
8 regions; and

9 (5) in consultation with the Secretary of State,  
10 provide representation at international meetings on  
11 ocean observing programs and coordinate relevant  
12 Federal activities with those of other nations.

13 (c) SYSTEM ELEMENTS.—The integrated ocean and  
14 coastal observing system shall include the following ele-  
15 ments:

16 (1) A nationally coordinated network of regional  
17 coastal ocean observing systems that measure and  
18 disseminate a common set of ocean observations and  
19 related products in a uniform manner and according  
20 to sound scientific practice, but that are adapted to  
21 local and regional needs.

22 (2) Ocean sensors for climate observations, in-  
23 cluding the Arctic Ocean and sub-polar seas.

24 (3) Coastal, relocatable, and cabled sea floor  
25 observatories.



1           (4) Broad bandwidth communications that are  
2           capable of transmitting high volumes of data from  
3           open ocean locations at low cost and in real time.

4           (5) Ocean data management and assimilation  
5           systems that ensure full use of new sources of data  
6           from space-borne and in situ sensors.

7           (6) Focused research programs.

8           (7) Technology development program to develop  
9           new observing technologies and techniques, including  
10          data management and dissemination.

11          (8) Public outreach and education.

12 **SEC. 1352. AUTHORIZATION OF APPROPRIATIONS.**

13          For development and implementation of an inte-  
14          grated ocean and coastal observation system under this  
15          title, including financial assistance to regional coastal  
16          ocean observing systems, there are authorized to be appro-  
17          priated \$235,000,000 in fiscal year 2003, \$315,000,000  
18          in fiscal year 2004, \$390,000,000 in fiscal year 2005, and  
19          \$445,000,000 in fiscal year 2006.

20                   **Subtitle E—Climate Change**  
21                   **Technology**

22 **SEC. 1361. NIST GREENHOUSE GAS FUNCTIONS.**

23          Section 2(c) of the National Institute of Standards  
24          and Technology Act (15 U.S.C. 272(c)) is amended—

1           (1) striking “and” after the semicolon in para-  
2       graph (21);

3           (2) by redesignating paragraph (22) as para-  
4       graph (23); and

5           (3) by inserting after paragraph (21) the fol-  
6       lowing:

7           “(22) perform research to develop enhanced  
8       measurements, calibrations, standards, and tech-  
9       nologies which will enable the reduced production in  
10      the United States of greenhouse gases associated  
11      with global warming, including carbon dioxide, meth-  
12      ane, nitrous oxide, ozone, perfluorocarbons,  
13      hydrofluorocarbons, and sulphur hexafluoride; and”.

14   **SEC. 1362. DEVELOPMENT OF NEW MEASUREMENT TECH-**  
15                   **NOLOGIES.**

16       (a) IN GENERAL.—The Secretary of Commerce shall  
17   initiate a program to develop, with technical assistance  
18   from appropriate Federal agencies, innovative standards  
19   and measurement technologies (including technologies to  
20   measure carbon changes due to changes in land use cover)  
21   to calculate—

22           (1) greenhouse gas emissions and reductions  
23      from agriculture, forestry, and other land use prac-  
24      tices;

1           (2) non-carbon dioxide greenhouse gas emis-  
2       sions from transportation;

3           (3) greenhouse gas emissions from facilities or  
4       sources using remote sensing technology; and

5           (4) any other greenhouse gas emission or reduc-  
6       tions for which no accurate or reliable measurement  
7       technology exists.

8   **SEC. 1363. ENHANCED ENVIRONMENTAL MEASUREMENTS**  
9                           **AND STANDARDS.**

10       The National Institute of Standards and Technology  
11   Act (15 U.S.C. 271 et seq.) is amended—

12           (1) by redesignating sections 17 through 32 as  
13       sections 18 through 33, respectively; and

14           (2) by inserting after section 16 the following:

15   **“SEC. 17. CLIMATE CHANGE STANDARDS AND PROCESSES.**

16       “(a) IN GENERAL.—The Director shall establish  
17   within the Institute a program to perform and support re-  
18   search on global climate change standards and processes,  
19   with the goal of providing scientific and technical knowl-  
20   edge applicable to the reduction of greenhouse gases (as  
21   defined in section 4 of the Global Climate Change Act of  
22   2002).

23       “(b) RESEARCH PROGRAM.—

24           “(1) IN GENERAL.—The Director is authorized  
25       to conduct, directly or through contracts or grants,

1 a global climate change standards and processes re-  
2 search program.

3 “(2) RESEARCH PROJECTS.—The specific con-  
4 tents and priorities of the research program shall be  
5 determined in consultation with appropriate Federal  
6 agencies, including the Environmental Protection  
7 Agency, the National Oceanic and Atmospheric Ad-  
8 ministration, and the National Aeronautics and  
9 Space Administration. The program generally shall  
10 include basic and applied research—

11 “(A) to develop and provide the enhanced  
12 measurements, calibrations, data, models, and  
13 reference material standards which will enable  
14 the monitoring of greenhouse gases;

15 “(B) to assist in establishing of a baseline  
16 reference point for future trading in greenhouse  
17 gases and the measurement of progress in emis-  
18 sions reduction;

19 “(C) that will be exchanged internationally  
20 as scientific or technical information which has  
21 the stated purpose of developing mutually rec-  
22 ognized measurements, standards, and proce-  
23 dures for reducing greenhouse gases; and

1           “(D) to assist in developing improved in-  
2           dustrial processes designed to reduce or elimi-  
3           nated greenhouse gases.

4           “(c) NATIONAL MEASUREMENT LABORATORIES.—

5           “(1) IN GENERAL.—In carrying out this sec-  
6           tion, the Director shall utilize the collective skills of  
7           the National Measurement Laboratories of the Na-  
8           tional Institute of Standards and Technology to im-  
9           prove the accuracy of measurements that will permit  
10          better understanding and control of these industrial  
11          chemical processes and result in the reduction or  
12          elimination of greenhouse gases.

13          “(2) MATERIAL, PROCESS, AND BUILDING RE-  
14          SEARCH.—The National Measurement Laboratories  
15          shall conduct research under this subsection that  
16          includes—

17               “(A) developing material and manufac-  
18               turing processes which are designed for energy  
19               efficiency and reduced greenhouse gas emissions  
20               into the environment;

21               “(B) developing environmentally-friendly,  
22               ‘green’ chemical processes to be used by indus-  
23               try; and

24               “(C) enhancing building performance with  
25               a focus in developing standards or tools which

1           will help incorporate low or no-emission tech-  
2           nologies into building designs.

3           “(3) STANDARDS AND TOOLS.—The National  
4       Measurement Laboratories shall develop standards  
5       and tools under this subsection that include software  
6       to assist designers in selecting alternate building  
7       materials, performance data on materials, artificial  
8       intelligence-aided design procedures for building sub-  
9       systems and ‘smart buildings’, and improved test  
10      methods and rating procedures for evaluating the  
11      energy performance of residential and commercial  
12      appliances and products.

13      “(d) NATIONAL VOLUNTARY LABORATORY ACCREDI-  
14   TATION PROGRAM.—The Director shall utilize the Na-  
15   tional Voluntary Laboratory Accreditation Program under  
16   this section to establish a program to include specific cali-  
17   bration or test standards and related methods and proto-  
18   cols assembled to satisfy the unique needs for accredita-  
19   tion in measuring the production of greenhouse gases. In  
20   carrying out this subsection the Director may cooperate  
21   with other departments and agencies of the Federal Gov-  
22   ernment, State and local governments, and private organi-  
23   zations.”.

1 **SEC. 1364. TECHNOLOGY DEVELOPMENT AND DIFFUSION.**

2 (a) **ADVANCED TECHNOLOGY PROGRAM COMPETI-**  
3 **TIONS.**—The Director of the National Institute of Stand-  
4 ards and Technology, through the Advanced Technology  
5 Program, may hold a portion of the Institute’s competi-  
6 tions in thematic areas, selected after consultation with  
7 industry, academics, and other Federal Agencies, designed  
8 to develop and commercialize enabling technologies to ad-  
9 dress global climate change by significantly reducing  
10 greenhouse gas emissions and concentrations in the at-  
11 mosphere.

12 (b) **MANUFACTURING EXTENSION PARTNERSHIP**  
13 **PROGRAM FOR “GREEN” MANUFACTURING.**—The Direc-  
14 tor of the National Institute of Standards and Technology,  
15 through the Manufacturing Extension Partnership Pro-  
16 gram, may develop a program to support the implementa-  
17 tion of new “green” manufacturing technologies and tech-  
18 niques by the more than 380,000 small manufacturers.

19 **SEC. 1365. AUTHORIZATION OF APPROPRIATIONS.**

20 There are authorized to be appropriated to the Direc-  
21 tor to carry out functions pursuant to sections 1345,  
22 1351, and 1361 through 1363, \$10,000,000 for fiscal  
23 years 2002 through 2006.

**Subtitle F—Climate Adaptation  
and Hazards Prevention**

**PART I—ASSESSMENT AND ADAPTATION**

**SEC. 1371. REGIONAL CLIMATE ASSESSMENT AND ADAPTA-  
TION PROGRAM.**

(a) IN GENERAL.—The President shall establish within the Department of Commerce a National Climate Change Vulnerability and Adaptation Program for regional impacts related to increasing concentrations of greenhouse gases in the atmosphere and climate variability.

(b) COORDINATION.—In designing such program the Secretary shall consult with the Federal Emergency Management Agency, the Environmental Protection Agency, the Army Corps of Engineers, the Department of Transportation, and other appropriate Federal, State, and local government entities.

(c) VULNERABILITY ASSESSMENTS.—The program shall—

(1) evaluate, based on predictions developed under this Act and the National Climate Program Act (15 U.S.C. 2901 et seq.), regional vulnerability to phenomena associated with climate change and climate variability, including—

(A) increases in severe weather events;



1           (B) sea level rise and shifts in the  
2           hydrological cycle;

3           (C) natural hazards, including tsunami,  
4           drought, flood and fire; and

5           (D) alteration of ecological communities,  
6           including at the ecosystem or watershed levels;  
7           and

8           (2) build upon predictions and other informa-  
9           tion developed in the National Assessments prepared  
10          under the Global Change Research Act of 1990 (15  
11          U.S.C. 2921 et seq.).

12       (d) PREPAREDNESS RECOMMENDATIONS.—The pro-  
13       gram shall submit a report to Congress within 2 years  
14       after the date of enactment of this Act that identifies and  
15       recommends implementation and funding strategies for  
16       short and long-term actions that may be taken at the na-  
17       tional, regional, State, and local level—

18           (1) to minimize threats to human life and prop-  
19       erty,

20           (2) to improve resilience to hazards,

21           (3) to minimize economic impacts; and

22           (4) to reduce threats to critical biological and  
23       ecological processes.

24       (e) INFORMATION AND TECHNOLOGY.—The Sec-  
25       retary shall make available appropriate information and

1 other technologies and products that will assist national,  
2 regional, State, and local efforts to reduce loss of life and  
3 property, and coordinate dissemination of such tech-  
4 nologies and products.

5 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
6 are authorized to be appropriated to the Secretary of Com-  
7 merce \$4,500,000 to implement the requirements of this  
8 section.

9 **SEC. 1372. COASTAL VULNERABILITY AND ADAPTATION.**

10 (a) COASTAL VULNERABILITY.—Within 2 years after  
11 the date of enactment of this Act, the Secretary shall, in  
12 consultation with the appropriate Federal, State, and local  
13 governmental entities, conduct regional assessments of the  
14 vulnerability of coastal areas to hazards associated with  
15 climate change, climate variability, sea level rise, and fluc-  
16 tuation of Great Lakes water levels. The Secretary may  
17 also establish, as warranted, longer term regional assess-  
18 ment programs. The Secretary may also consult with the  
19 governments of Canada and Mexico as appropriate in de-  
20 veloping such regional assessments. In preparing the re-  
21 gional assessments, the Secretary shall collect and compile  
22 current information on climate change, sea level rise, nat-  
23 ural hazards, and coastal erosion and mapping, and spe-  
24 cifically address impacts on Arctic regions and the Cen-

1 tral, Western, and South Pacific regions. The regional as-  
2 sessments shall include an evaluation of—

3 (1) social impacts associated with threats to  
4 and potential losses of housing, communities, and in-  
5 frastructure;

6 (2) physical impacts such as coastal erosion,  
7 flooding and loss of estuarine habitat, saltwater in-  
8 trusion of aquifers and saltwater encroachment, and  
9 species migration; and

10 (3) economic impact on local, State, and re-  
11 gional economies, including the impact on abundance  
12 or distribution of economically important living ma-  
13 rine resources.

14 (b) COASTAL ADAPTATION PLAN.—The Secretary  
15 shall, within 3 years after the date of enactment of this  
16 Act, submit to the Congress a national coastal adaptation  
17 plan, composed of individual regional adaptation plans  
18 that recommend targets and strategies to address coastal  
19 impacts associated with climate change, sea level rise, or  
20 climate variability. The plan shall be developed with the  
21 participation of other Federal, State, and local govern-  
22 ment agencies that will be critical in the implementation  
23 of the plan at the State and local levels. The regional plans  
24 that will make up the national coastal adaptation plan  
25 shall be based on the information contained in the regional

1 assessments and shall identify special needs associated  
2 with Arctic areas and the Central, Western, and South  
3 Pacific regions. The Plan shall recommend both short and  
4 long-term adaptation strategies and shall include rec-  
5 ommendations regarding—

6           (1) Federal flood insurance program modifica-  
7       tions;

8           (2) areas that have been identified as high risk  
9       through mapping and assessment;

10          (3) mitigation incentives such as rolling ease-  
11       ments, strategic retreat, State or Federal acquisition  
12       in fee simple or other interest in land, construction  
13       standards, and zoning;

14          (4) land and property owner education;

15          (5) economic planning for small communities  
16       dependent upon affected coastal resources, including  
17       fisheries; and

18          (6) funding requirements and mechanisms.

19       (c) TECHNICAL PLANNING ASSISTANCE.—The Sec-  
20       retary, through the National Ocean Service, shall establish  
21       a coordinated program to provide technical planning as-  
22       sistance and products to coastal States and local govern-  
23       ments as they develop and implement adaptation or miti-  
24       gation strategies and plans. Products, information, tools  
25       and technical expertise generated from the development of

1 the regional assessments and the regional adaptation  
2 plans will be made available to coastal States for the pur-  
3 poses of developing their own State and local plans.

4 (d) COASTAL ADAPTATION GRANTS.—The Secretary  
5 shall provide grants of financial assistance to coastal  
6 States with Federally approved coastal zone management  
7 programs to develop and begin implementing coastal adap-  
8 tation programs if the State provides a Federal-to-State  
9 match of 4 to 1 in the first fiscal year, 2.3 to 1 in the  
10 second fiscal year, 2 to 1 in the third fiscal year, and 1  
11 to 1 thereafter. Distribution of these funds to coastal  
12 states shall be based upon the formula established under  
13 section 306(c) of the Coastal Zone Management Act of  
14 1972 (16 U.S.C. 1455(c)), adjusted in consultation with  
15 the States as necessary to provide assistance to particu-  
16 larly vulnerable coastlines.

17 (e) COASTAL RESPONSE PILOT PROGRAM.—

18 (1) IN GENERAL.—The Secretary shall establish  
19 a 4-year pilot program to provide financial assist-  
20 ance to coastal communities most adversely affected  
21 by the impact of climate change or climate varia-  
22 bility that are located in States with Federally ap-  
23 proved coastal zone management programs.

1           (2) ELIGIBLE PROJECTS.—A project is eligible  
2       for financial assistance under the pilot program if  
3       it—

4           (A) will restore or strengthen coastal re-  
5       sources, facilities, or infrastructure that have  
6       been damaged by such an impact, as deter-  
7       mined by the Secretary;

8           (B) meets the requirements of the Coastal  
9       Zone Management Act (16 U.S.C. 1451 et seq.)  
10      and is consistent with the coastal zone manage-  
11      ment plan of the State in which it is located;  
12      and

13          (C) will not cost more than \$100,000.

14          (3) FUNDING SHARE.—The Federal funding  
15      share of any project under this subsection may not  
16      exceed 75 percent of the total cost of the project. In  
17      the administration of this paragraph—

18          (A) the Secretary may take into account  
19      in-kind contributions and other non-cash sup-  
20      port of any project to determine the Federal  
21      funding share for that project; and

22          (B) the Secretary may waive the require-  
23      ments of this paragraph for a project in a com-  
24      munity if—

1 (i) the Secretary determines that the  
2 project is important; and

3 (ii) the economy and available re-  
4 sources of the community in which the  
5 project is to be conducted are insufficient  
6 to meet the non-Federal share of the  
7 project's costs.

8 (f) DEFINITIONS.—Any term used in this section that  
9 is defined in section 304 of the Coastal Zone Management  
10 Act of 1972 (16 U.S.C. 1453) has the meaning given it  
11 by that section.

12 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
13 are authorized to be appropriated \$3,000,000 annually for  
14 regional assessments under subsection (a), and  
15 \$3,000,000 annually for coastal adaptation grants under  
16 subsection (d).

17 **PART II—FORECASTING AND PLANNING PILOT**  
18 **PROGRAMS**

19 **SEC. 1381. REMOTE SENSING PILOT PROJECTS.**

20 (a) IN GENERAL.—The Administrator of the Na-  
21 tional Aeronautics and Space Administration shall estab-  
22 lish, through the National Oceanic and Atmospheric Ad-  
23 ministration's Coastal Services Center, a program of  
24 grants for competitively awarded pilot projects to explore  
25 the integrated use of sources of remote sensing and other

1 geospatial information to address State, local, regional,  
2 and tribal agency needs to forecast a plan for adaptation  
3 to coastal zone and land use changes that may result as  
4 a consequence of global climate change or climate varia-  
5 bility.

6 (b) PREFERRED PROJECTS.—In awarding grants  
7 under this section, the Center shall give preference to  
8 projects that—

9 (1) focus on areas that are most sensitive to the  
10 consequences of global climate change or climate  
11 variability;

12 (2) make use of existing public or commercial  
13 data sets;

14 (3) integrate multiple sources of geospatial in-  
15 formation, such as geographic information system  
16 data, satellite-provided positioning data, and re-  
17 motely sensed data, in innovative ways;

18 (4) offer diverse, innovative approaches that  
19 may serve as models for establishing a future coordi-  
20 nated framework for planning strategies for adapta-  
21 tion to coastal zone and land use changes related to  
22 global climate change or climate variability;

23 (5) include funds or in-kind contributions from  
24 non-Federal sources;



1           (6) involve the participation of commercial enti-  
2           ties that process raw or lightly processed data, often  
3           merging that data with other geospatial information,  
4           to create data products that have significant value  
5           added to the original data; and

6           (7) taken together demonstrate as diverse a set  
7           of public sector applications as possible.

8           (c) OPPORTUNITIES.—In carrying out this section,  
9           the Center shall seek opportunities to assist—

10           (1) in the development of commercial applica-  
11           tions potentially available from the remote sensing  
12           industry; and

13           (2) State, local, regional, and tribal agencies in  
14           applying remote sensing and other geospatial infor-  
15           mation technologies for management and adaptation  
16           to coastal and land use consequences of global cli-  
17           mate change or climate variability.

18           (d) DURATION.—Assistance for a pilot project under  
19           subsection (a) shall be provided for a period of not more  
20           than 3 years.

21           (e) RESPONSIBILITIES OF GRANTEES.—Within 180  
22           days after completion of a grant project, each recipient  
23           of a grant under subsection (a) shall transmit a report  
24           to the Center on the results of the pilot project and con-  
25           duct at least one workshop for potential users to dissemi-

1 nate the lessons learned from the pilot project as widely  
2 as feasible.

3 (f) REGULATIONS.—The Center shall issue regula-  
4 tions establishing application, selection, and implementa-  
5 tion procedures for pilot projects, and guidelines for re-  
6 ports and workshops required by this section.

7 **SEC. 1382. DATABASE ESTABLISHMENT.**

8 The Center shall establish and maintain an elec-  
9 tronic, Internet-accessible database of the results of each  
10 pilot project completed under section 1381.

11 **SEC. 1383. DEFINITIONS.**

12 In this subtitle:

13 (1) CENTER.—The term “Center” means the  
14 Coastal Services Center of the National Oceanic and  
15 Atmospheric Administration.

16 (2) GEOSPATIAL INFORMATION.—The term  
17 “geospatial information” means knowledge of the  
18 nature and distribution of physical and cultural fea-  
19 tures on the landscape based on analysis of data  
20 from airborne or spaceborne platforms or other  
21 types and sources of data.

22 (3) INSTITUTION OF HIGHER EDUCATION.—The  
23 term “institution of higher education” has the  
24 meaning given that term in section 101(a) of the  
25 Higher Education Act of 1965 (20 U.S.C. 1001(a)).

1 **SEC. 1384. AUTHORIZATION OF APPROPRIATIONS.**

2       There are authorized to be appropriated to the Ad-  
3 ministrator to carry out the provisions of this subtitle—

4               (1) \$17,500,000 for fiscal year 2003;

5               (2) \$20,000,000 for fiscal year 2004;

6               (3) \$22,500,000 for fiscal year 2005; and

7               (4) \$25,000,000 for fiscal year 2006.

8 **TITLE XIV—MANAGEMENT OF**  
9 **DOE SCIENCE AND TECH-**  
10 **NOLOGY PROGRAMS**

11 **SEC. 1401. DEFINITIONS.**

12       In this title:

13               (1) **APPLICABILITY OF DEFINITIONS.**—The  
14 definitions in section 1203 shall apply.

15               (2) **SINGLE-PURPOSE RESEARCH FACILITY.**—  
16 The term “single-purpose research facility” means  
17 any of the following primarily single purpose entities  
18 owned by the Department of Energy—

19                       (A) Ames Laboratory;

20                       (B) East Tennessee Technology Park;

21                       (C) Environmental Measurement Labora-  
22 tory;

23                       (D) Fernald Environmental Management  
24 Project;

25                       (E) Fermi National Accelerator Labora-  
26 tory;

- 1 (F) Kansas City Plant;
- 2 (G) Nevada Test Site;
- 3 (H) New Brunswick Laboratory;
- 4 (I) Pantex Weapons Facility;
- 5 (J) Princeton Plasma Physics Laboratory;
- 6 (K) Savannah River Technology Center;
- 7 (L) Stanford Linear Accelerator Center;
- 8 (M) Thomas Jefferson National Accel-
- 9 erator Facility;
- 10 (N) Y-12 facility at Oak Ridge National
- 11 Laboratory;
- 12 (O) Waste Isolation Pilot Plant; or
- 13 (P) other similar organization of the De-
- 14 partment designated by the Secretary that en-
- 15 gages in technology transfer, partnering, or li-
- 16 censing activities.

17 **SEC. 1402. AVAILABILITY OF FUNDS.**

18 Funds authorized to be appropriated to the Depart-  
19 ment of Energy under title XII, title XIII, and title XV  
20 shall remain available until expended.

21 **SEC. 1403. COST SHARING.**

22 (a) RESEARCH AND DEVELOPMENT.—For research  
23 and development projects funded from appropriations au-  
24 thorized under subtitles A through D of title XII, the Sec-  
25 retary shall require a commitment from non-federal

1 sources of at least 20 percent of the cost of the project.  
2 The Secretary may reduce or eliminate the non-Federal  
3 requirement under this subsection if the Secretary deter-  
4 mines that the research and development is of a basic or  
5 fundamental nature.

6 (b) DEMONSTRATION AND DEPLOYMENT.—For dem-  
7 onstration and technology deployment activities funded  
8 from appropriations authorized under subtitles A through  
9 D of title XII, the Secretary shall require a commitment  
10 from non-federal sources of at least 50 percent of the costs  
11 of the project directly and specifically related to any dem-  
12 onstration or technology deployment activity. The Sec-  
13 retary may reduce or eliminate the non-federal require-  
14 ment under this subsection if the Secretary determines  
15 that the reduction is necessary and appropriate consid-  
16 ering the technological risks involved in the project and  
17 is necessary to meet one or more goals of this title.

18 (c) CALCULATION OF AMOUNT.—In calculating the  
19 amount of the non-Federal commitment under subsection  
20 (a) or (b), the Secretary shall include cash, personnel,  
21 services, equipment, and other resources.

22 **SEC. 1404. MERIT REVIEW OF PROPOSALS.**

23 Awards of funds authorized under title XII, subtitle  
24 A of title XIII, and title XV shall be made only after an  
25 independent review of the scientific and technical merit of

1 the proposals for such awards has been made by the De-  
2 partment of Energy.

3 **SEC. 1405. EXTERNAL TECHNICAL REVIEW OF DEPART-**  
4 **MENTAL PROGRAMS.**

5 (a) NATIONAL ENERGY RESEARCH AND DEVELOP-  
6 MENT ADVISORY BOARDS.—(1) The Secretary shall estab-  
7 lish an advisory board to oversee Department research and  
8 development programs in each of the following areas—

9 (A) energy efficiency;

10 (B) renewable energy;

11 (C) fossil energy;

12 (D) nuclear energy; and

13 (E) climate change technology, with emphasis  
14 on integration, collaboration, and other special fea-  
15 tures of the cross-cutting technologies supported by  
16 the Office of Climate Change Technology.

17 (2) The Secretary may designate an existing advisory  
18 board within the Department to fulfill the responsibilities  
19 of an advisory board under this subsection, or may enter  
20 into appropriate arrangements with the National Academy  
21 of Sciences to establish such an advisory board.

22 (b) UTILIZATION OF EXISTING COMMITTEES.—The  
23 Secretary of Energy shall continue to use the scientific  
24 program advisory committees chartered under the Federal

1 Advisory Committee Act by the Office of Science to over-  
2 see research and development programs under that Office.

3 (c) MEMBERSHIP.—Each advisory board under this  
4 section shall consist of experts drawn from industry, aca-  
5 demia, federal laboratories, research institutions, or state,  
6 local, or tribal governments, as appropriate.

7 (d) MEETINGS AND PURPOSES.—Each advisory  
8 board under this section shall meet at least semi-annually  
9 to review and advise on the progress made by the respec-  
10 tive research, development, demonstration, and technology  
11 deployment program. The advisory board shall also review  
12 the adequacy and relevance of the goals established for  
13 each program by Congress and the President, and may  
14 otherwise advise on promising future directions in re-  
15 search and development that should be considered by each  
16 program.

17 **SEC. 1406. IMPROVED COORDINATION AND MANAGEMENT**  
18 **OF CIVILIAN SCIENCE AND TECHNOLOGY**  
19 **PROGRAMS.**

20 (a) EFFECTIVE TOP-LEVEL COORDINATION OF RE-  
21 SEARCH AND DEVELOPMENT PROGRAMS.—Section 202(b)  
22 of the Department of Energy Organization Act (42 U.S.C.  
23 7132(b)) is amended to read as follows:

24 “(b)(1) There shall be in the Department an Under  
25 Secretary for Energy and Science, who shall be appointed

1 by the President, by and with the advice and consent of  
2 the Senate. The Under Secretary shall be compensated at  
3 the rate provided for at level III of the Executive Schedule  
4 under section 5314 of title 5, United States Code.

5 “(2) The Under Secretary for Energy and Science  
6 shall be appointed from among persons who—

7 “(A) have extensive background in scientific or  
8 engineering fields; and

9 “(B) are well qualified to manage the civilian  
10 research and development programs of the Depart-  
11 ment of Energy.

12 “(3) The Under Secretary for Energy and Science  
13 shall—

14 “(A) serve as the Science and Technology Advi-  
15 sor to the Secretary;

16 “(B) monitor the Department’s research and  
17 development programs in order to advise the Sec-  
18 retary with respect to any undesirable duplication or  
19 gaps in such programs;

20 “(C) advise the Secretary with respect to the  
21 well-being and management of the multipurpose lab-  
22 oratories under the jurisdiction of the Department;

23 “(D) advise the Secretary with respect to edu-  
24 cation and training activities required for effective



1 short- and long-term basic and applied research ac-  
2 tivities of the Department;

3 “(E) advise the Secretary with respect to grants  
4 and other forms of financial assistance required for  
5 effective short- and long-term basic and applied re-  
6 search activities of the Department; and

7 “(F) exercise authority and responsibility over  
8 Assistant Secretaries carrying out energy research  
9 and development and energy technology functions  
10 under sections 203 and 209, as well as other ele-  
11 ments of the Department assigned by the Sec-  
12 retary.”.

13 (b) RECONFIGURATION OF POSITION OF DIRECTOR  
14 OF THE OFFICE OF SCIENCE.—Section 209 of the Depart-  
15 ment of Energy Organization Act (41 U.S.C. 7139) is  
16 amended to read as follows—

17 “(a) There shall be within the Department an Office  
18 of Science, to be headed by an Assistant Secretary of  
19 Science, who shall be appointed by the President, by and  
20 with the advice and consent of the Senate, and who shall  
21 be compensated at the rate provided for level IV of the  
22 Executive Schedule under section 5315 of title 5, United  
23 States Code.

1       “(b) The Assistant Secretary of Science shall be in  
2 addition to the Assistant Secretaries provided for under  
3 section 203 of this Act.

4       “(c) It shall be the duty and responsibility of the As-  
5 sistant Secretary of Science to carry out the fundamental  
6 science and engineering research functions of the Depart-  
7 ment, including the responsibility for policy and manage-  
8 ment of such research, as well as other functions vested  
9 in the Secretary which he may assign to the Assistant Sec-  
10 retary.”.

11       (c) ADDITIONAL ASSISTANT SECRETARY POSITION  
12 TO ENABLE IMPROVED MANAGEMENT OF NUCLEAR EN-  
13 ERGY ISSUES.—

14           (1) Section 203(a) of the Department of En-  
15 ergy Organization Act (42 U.S.C. 7133(a)) is  
16 amended by striking “There shall be in the Depart-  
17 ment six Assistant Secretaries” and inserting “Ex-  
18 cept as provided in section 209, there shall be in the  
19 Department seven Assistant Secretaries”.

20           (2) It is the Sense of the Senate that the lead-  
21 ership for departmental missions in nuclear energy  
22 should be at the Assistant Secretary level.

23       (d) TECHNICAL AND CONFORMING AMENDMENTS.—

1           (1) Section 202 of the Department of Energy  
2       Organization Act (42 U.S.C. 7132) is further  
3       amended by adding the following at the end:

4       “(d) There shall be in the Department an Under Sec-  
5       retary, who shall be appointed by the President, by and  
6       with the advice and consent of the Senate, and who shall  
7       perform such functions and duties as the Secretary shall  
8       prescribe, consistent with this section. The Under Sec-  
9       retary shall be compensated at the rate provided for level  
10      III of the Executive Schedule under section 5314 of title  
11      5, United States Code.

12      “(e) There shall be in the Department a General  
13      Counsel, who shall be appointed by the President, by and  
14      with the advice and consent of the Senate. The General  
15      Counsel shall be compensated at the rate provided for level  
16      IV of the Executive Schedule under section 5315 of title  
17      5, United States Code.”.

18           (2) Section 5314 of title 5, United States Code,  
19       is amended by striking “Under Secretaries of En-  
20       ergy (2)” and inserting “Under Secretaries of En-  
21       ergy (3)”.

22           (3) Section 5315 of title 5, United States Code,  
23       is amended by—

24           (A) striking “Director, Office of Science,  
25       Department of Energy.”; and

1 (B) striking “Assistant Secretaries of En-  
2 ergy (6)” and inserting “Assistant Secretaries  
3 of Energy (8)”.

4 (4) The table of contents for the Department of  
5 Energy Organization Act (42 U.S.C. 7101 note) is  
6 amended—

7 (A) by striking “Section 209” and insert-  
8 ing “Sec. 209”;

9 (B) by striking “213.” and inserting “Sec.  
10 213”;

11 (C) by striking “214.” and inserting “Sec.  
12 214.”;

13 (D) by striking “215.” and inserting “Sec.  
14 215.”; and

15 (E) by striking “216.” and inserting “Sec.  
16 216.”.

17 **SEC. 1407. IMPROVED COORDINATION OF TECHNOLOGY**  
18 **TRANSFER ACTIVITIES.**

19 (a) **TECHNOLOGY TRANSFER COORDINATOR.**—The  
20 Secretary shall appoint a Technology Transfer Coordi-  
21 nator to perform oversight of and policy development for  
22 technology transfer activities at the Department. The  
23 Technology Transfer Coordinator shall coordinate the ac-  
24 tivities of the Technology Partnerships Working Group,

1 and shall oversee the expenditure of funds allocated to the  
2 Technology Partnership Working Group.

3 (b) TECHNOLOGY PARTNERSHIP WORKING  
4 GROUP.—The Secretary shall establish a Technology  
5 Partnership Working Group, which shall consist of rep-  
6 resentatives of the National Laboratories and single-pur-  
7 pose research facilities, to—

8 (1) coordinate technology transfer activities oc-  
9 ccurring at National Laboratories and single-purpose  
10 research facilities;

11 (2) exchange information about technology  
12 transfer practices; and

13 (3) develop and disseminate to the public and  
14 prospective technology partners information about  
15 opportunities and procedures for technology transfer  
16 with the Department.

17 **SEC 1408. TECHNOLOGY INFRASTRUCTURE PROGRAM.**

18 (a) ESTABLISHMENT.—The Secretary shall establish  
19 a Technology Infrastructure Program in accordance with  
20 this section.

21 (b) PURPOSE.—The purpose of the Technology Infra-  
22 structure Program shall be to improve the ability of Na-  
23 tional Laboratories or single-purpose research facilities to  
24 support departmental missions by—

1           (1) stimulating the development of technology  
2           clusters that can support departmental missions at  
3           the National Laboratories or single-purpose research  
4           facilities;

5           (2) improving the ability of National Labora-  
6           tories or single-purpose research facilities to leverage  
7           and benefit from commercial research, technology,  
8           products, processes, and services; and

9           (3) encouraging the exchange of scientific and  
10          technological expertise between National Labora-  
11          tories or single-purpose research facilities and—

12                   (A) institutions of higher education,

13                   (B) technology-related business concerns,

14                   (C) nonprofit institutions, and

15                   (D) agencies of State, tribal, or local gov-  
16          ernments,

17          that can support departmental missions at the National  
18          Laboratories and single-purpose research facilities.

19          (c) PROJECTS.—The Secretary shall authorize the  
20          Director of each National Laboratory or facility to imple-  
21          ment the Technology Infrastructure Program at such Na-  
22          tional Laboratory or single-purpose research facility  
23          through projects that meet the requirements of sub-  
24          sections (d) and (e).

1 (d) PROGRAM REQUIREMENTS.—Each project funded  
2 under this section shall meet the following requirements:

3 (1) MINIMUM PARTICIPANTS.—Each project  
4 shall at a minimum include—

5 (A) a National Laboratory or single-pur-  
6 pose research facility; and

7 (B) one of the following entities—

8 (i) a business,

9 (ii) an institution of higher education,

10 (iii) a nonprofit institution, or

11 (iv) an agency of a State, local, or  
12 tribal government.

13 (2) COST SHARING.—

14 (A) MINIMUM AMOUNT.—Not less than 50  
15 percent of the costs of each project funded  
16 under this section shall be provided from non-  
17 Federal sources.

18 (B) QUALIFIED FUNDING AND RE-  
19 SOURCES.—

20 (i) The calculation of costs paid by  
21 the non-Federal sources to a project shall  
22 include cash, personnel, services, equip-  
23 ment, and other resources expended on the  
24 project.

1                   (ii) Independent research and develop-  
2                   ment expenses of government contractors  
3                   that qualify for reimbursement under sec-  
4                   tion 31–205–18(e) of the Federal Acquisi-  
5                   tion Regulations issued pursuant to section  
6                   25(c)(1) of the Office of Federal Procure-  
7                   ment Policy Act (41 U.S.C. 421(c)(1))  
8                   may be credited towards costs paid by non-  
9                   Federal sources to a project, if the ex-  
10                  penses meet the other requirements of this  
11                  section.

12                 (iii) No funds or other resources ex-  
13                  pended either before the start of a project  
14                  under this section or outside the project’s  
15                  scope of work shall be credited toward the  
16                  costs paid by the non-Federal sources to  
17                  the project.

18                 (3) COMPETITIVE SELECTION.—All projects in  
19                  which a party other than the Department, a Na-  
20                  tional Laboratory, or a single-purpose research facil-  
21                  ity receives funding under this section shall, to the  
22                  extent practicable, be competitively selected by the  
23                  National Laboratory or facility using procedures de-  
24                  termined to be appropriate by the Secretary.



1           (4) ACCOUNTING STANDARDS.—Any participant  
2           that receives funds under this section, other than a  
3           National Laboratory or single-purpose research facil-  
4           ity, may use generally accepted accounting principles  
5           for maintaining accounts, books, and records relat-  
6           ing to the project.

7           (5) LIMITATIONS.—No Federal funds shall be  
8           made available under this section for—

9                     (A) construction; or

10                    (B) any project for more than five years.

11           (e) SELECTION CRITERIA.—

12                   (1) THRESHOLD FUNDING CRITERIA.—The Sec-  
13           retary shall allocate funds under this section only if  
14           the Director of the National Laboratory or single-  
15           purpose research facility managing the project deter-  
16           mines that the project is likely to improve the ability  
17           of the National Laboratory or single-purpose re-  
18           search facility to achieve technical success in meet-  
19           ing departmental missions.

20                   (2) ADDITIONAL CRITERIA.—The Secretary  
21           shall require the Director of the National Labora-  
22           tory or single-purpose research facility managing a  
23           project under this section to consider the following  
24           criteria in selecting a project to receive Federal  
25           funds—

1           (A) the potential of the project to succeed,  
2           based on its technical merit, team members,  
3           management approach, resources, and project  
4           plan;

5           (B) the potential of the project to promote  
6           the development of a commercially sustainable  
7           technology cluster, which will derive most of the  
8           demand for its products or services from the  
9           private sector, and which will support depart-  
10          mental missions at the participating National  
11          Laboratory or single-purpose research facility;

12          (C) the potential of the project to promote  
13          the use of commercial research, technology,  
14          products, processes, and services by the partici-  
15          pating National Laboratory or single-purpose  
16          research facility to achieve its departmental  
17          mission or the commercial development of tech-  
18          nological innovations made at the participating  
19          National Laboratory or single-purpose research  
20          facility;

21          (D) the commitment shown by non-Federal  
22          organizations to the project, based primarily on  
23          the nature and amount of the financial and  
24          other resources they will risk on the project;

1           (E) the extent to which the project involves  
2           a wide variety and number of institutions of  
3           higher education, nonprofit institutions, and  
4           technology-related business concerns that can  
5           support the missions of the participating Na-  
6           tional Laboratory or single-purpose research fa-  
7           cility and that will make substantive contribu-  
8           tions to achieving the goals of the project;

9           (F) the extent of participation in the  
10          project by agencies of State, tribal, or local gov-  
11          ernments that will make substantive contribu-  
12          tions to achieving the goals of the project;

13          (G) the extent to which the project focuses  
14          on promoting the development of technology-re-  
15          lated business concerns that are small business  
16          concerns or involves such small business con-  
17          cerns substantively in the project; and

18          (H) such other criteria as the Secretary  
19          determines to be appropriate.

20          (f) REPORT TO CONGRESS.—Not later than January  
21          1, 2004, the Secretary shall report to Congress on whether  
22          the Technology Infrastructure Program should be contin-  
23          ued and, if so, how the program should be managed.

24          (g) DEFINITIONS.—In this section:

1           (1) TECHNOLOGY CLUSTER.—The term “tech-  
2       nology cluster” means a concentration of—

3                   (A) technology-related business concerns;

4                   (B) institutions of higher education; or

5                   (C) other nonprofit institutions,

6       that reinforce each other’s performance in the areas  
7       of technology development through formal or infor-  
8       mal relationships.

9           (2) TECHNOLOGY-RELATED BUSINESS CON-  
10       CERN.—The term “technology-related business con-  
11       cern” means a for-profit corporation, company, asso-  
12       ciation, firm, partnership, or small business concern  
13       that—

14                   (A) conducts scientific or engineering re-  
15       search,

16                   (B) develops new technologies,

17                   (C) manufactures products based on new  
18       technologies, or

19                   (D) performs technological services.

20       (h) AUTHORIZATION OF APPROPRIATIONS.—There  
21       are authorized to be appropriated to the Secretary for ac-  
22       tivities under this section \$10,000,000 for each of fiscal  
23       years 2003 and 2004.

1 **SEC. 1409. SMALL BUSINESS ADVOCACY AND ASSISTANCE.**

2 (a) SMALL BUSINESS ADVOCATE.—The Secretary  
3 shall require the Director of each National Laboratory,  
4 and may require the Director of a single-purpose research  
5 facility, to appoint a small business advocate to—

6 (1) increase the participation of small business  
7 concerns, including socially and economically dis-  
8 advantaged small business concerns, in procurement,  
9 collaborative research, technology licensing, and  
10 technology transfer activities conducted by the Na-  
11 tional Laboratory or single-purpose research facility;

12 (2) report to the Director of the National Lab-  
13 oratory or single-purpose research facility on the ac-  
14 tual participation of small business concerns in pro-  
15 curement and collaborative research along with rec-  
16 ommendations, if appropriate, on how to improve  
17 participation;

18 (3) make available to small business concerns  
19 training, mentoring, and clear, up-to-date informa-  
20 tion on how to participate in the procurement and  
21 collaborative research, including how to submit effec-  
22 tive proposals;

23 (4) increase the awareness inside the National  
24 Laboratory or single-purpose research facility of the  
25 capabilities and opportunities presented by small  
26 business concerns; and

1           (5) establish guidelines for the program under  
2       subsection (b) and report on the effectiveness of  
3       such program to the Director of the National Lab-  
4       oratory or single-purpose research facility.

5       (b) ESTABLISHMENT OF SMALL BUSINESS ASSIST-  
6       ANCE PROGRAM.—The Secretary shall require the Direc-  
7       tor of each National Laboratory, and may require the di-  
8       rector of a single-purpose research facility, to establish a  
9       program to provide small business concerns—

10           (1) assistance directed at making them more ef-  
11       fective and efficient subcontractors or suppliers to  
12       the National Laboratory or single-purpose research  
13       facility; or

14           (2) general technical assistance, the cost of  
15       which shall not exceed \$10,000 per instance of as-  
16       sistance, to improve the small business concern's  
17       products or services.

18       (c) USE OF FUNDS.—None of the funds expended  
19       under subsection (b) may be used for direct grants to the  
20       small business concerns.

21       (d) DEFINITIONS.—In this section:

22           (1) SMALL BUSINESS CONCERN.—The term  
23       “small business concern” has the meaning given  
24       such term in section 3 of the Small Business Act  
25       (15 U.S.C. 632).

1           (2) SOCIALLY AND ECONOMICALLY DISADVAN-  
2           TAGED SMALL BUSINESS CONCERNS.—The term “so-  
3           cially and economically disadvantaged small business  
4           concerns” has the meaning given such term in sec-  
5           tion 8(a)(4) of the Small Business Act (15 U.S.C.  
6           637(a)(4)).

7   **SEC. 1410. OTHER TRANSACTIONS.**

8           (a) IN GENERAL.—Section 646 of the Department of  
9   Energy Organization Act (42 U.S.C. 7256) is amended  
10 by adding at the end the following:

11          “(g) OTHER TRANSACTIONS AUTHORITY.—(1) In ad-  
12 dition to other authorities granted to the Secretary to  
13 enter into procurement contracts, leases, cooperative  
14 agreements, grants, and other similar arrangements, the  
15 Secretary may enter into other transactions with public  
16 agencies, private organizations, or persons on such terms  
17 as the Secretary may deem appropriate in furtherance of  
18 basic, applied, and advanced research functions now or  
19 hereafter vested in the Secretary. Such other transactions  
20 shall not be subject to the provisions of section 9 of the  
21 Federal Nonnuclear Energy Research and Development  
22 Act of 1974 (42 U.S.C. 5908).

23          “(2)(A) The Secretary of Energy shall ensure that—  
24                  “(i) to the maximum extent practicable, no  
25                  transaction entered into under paragraph (1) pro-

1       vides for research that duplicates research being  
2       conducted under existing programs carried out by  
3       the Department of Energy; and

4               “(ii) to the extent that the Secretary determines  
5       practicable, the funds provided by the Government  
6       under a transaction authorized by paragraph (1) do  
7       not exceed the total amount provided by other par-  
8       ties to the transaction.

9       “(B) A transaction authorized by paragraph (1) may  
10      be used for a research project when the use of a standard  
11      contract, grant, or cooperative agreement for such project  
12      is not feasible or appropriate.

13       “(3)(A) The Secretary shall not disclose any trade  
14      secret or commercial or financial information submitted  
15      by a non-Federal entity under paragraph (1) that is privi-  
16      leged and confidential.

17       “(B) The Secretary shall not disclose, for five years  
18      after the date the information is received, any other infor-  
19      mation submitted by a non-Federal entity under para-  
20      graph (1), including any proposal, proposal abstract, docu-  
21      ment supporting a proposal, business plan, or technical  
22      information that is privileged and confidential.

23       “(C) The Secretary may protect from disclosure, for  
24      up to five years, any information developed pursuant to  
25      a transaction under paragraph (1) that would be protected



1 from disclosure under section 552(b)(4) of title 5, United  
2 States Code, if obtained from a person other than a Fed-  
3 eral agency.”.

4 (b) IMPLEMENTATION.—Not later than six months  
5 after the date of enactment of this section, the Depart-  
6 ment shall establish guidelines for the use of other trans-  
7 actions.

8 **SEC. 1411. MOBILITY OF SCIENTIFIC AND TECHNICAL PER-**  
9 **SONNEL.**

10 Not later than two years after the enactment of this  
11 section, the Secretary, acting through the Technology  
12 Transfer Coordinator under section 1407, shall determine  
13 whether each contractor operating a National Laboratory  
14 or single-purpose research facility has policies and proce-  
15 dures that do not create disincentives to the transfer of  
16 scientific and technical personnel among the contractor-  
17 operated National Laboratories or contractor-operated  
18 single-purpose research facilities.

19 **SEC. 1412. NATIONAL ACADEMY OF SCIENCES REPORT.**

20 Within 90 days after the date of enactment of this  
21 Act, the Secretary shall contract with the National Acad-  
22 emy of Sciences to—

23 (1) conduct a study on the obstacles to accel-  
24 erating the innovation cycle for energy technology,  
25 and

1           (2) report to the Congress recommendations for  
2           shortening the cycle of research, development, and  
3           deployment.

4   **SEC. 1413. REPORT ON TECHNOLOGY READINESS AND BAR-**  
5           **RIERS TO TECHNOLOGY TRANSFER.**

6           (a) IN GENERAL.—The Secretary, acting through the  
7   Technology Partnership Working Group and in consulta-  
8   tion with representatives of affected industries, univer-  
9   sities, and small business concerns, shall—

10           (1) assess the readiness for technology transfer  
11           of energy technologies developed through projects  
12           funded from appropriations authorized under sub-  
13           titles A through D of title XIV, and

14           (2) identify barriers to technology transfer and  
15           cooperative research and development agreements  
16           between the Department or a National Laboratory  
17           and a non-federal person; and

18           (3) make recommendations for administrative  
19           or legislative actions needed to reduce or eliminate  
20           such barriers.

21           (b) REPORT.—The Secretary provide a report to Con-  
22   gress and the President on activities carried out under this  
23   section not later than one year after the date of enactment  
24   of this section, and shall update such report on a biennial  
25   basis, taking into account progress toward eliminating

1 barriers to technology transfer identified in previous re-  
2 ports under this section.

3       **TITLE XV—PERSONNEL AND**  
4                   **TRAINING**

5       **SEC. 1501. WORKFORCE TRENDS AND TRAINEESHIP**  
6                   **GRANTS.**

7       (a) WORKFORCE TRENDS.—

8               (1) MONITORING.—The Secretary of Energy (in  
9       this title referred to as the “Secretary”), acting  
10       through the Administrator of the Energy Informa-  
11       tion Administration, in consultation with the Sec-  
12       retary of Labor, shall monitor trends in the work-  
13       force of skilled technical personnel supporting energy  
14       technology industries, including renewable energy in-  
15       dustries, companies developing and commercializing  
16       devices to increase energy-efficiency, the oil and gas  
17       industry, nuclear power industry, the coal industry,  
18       and other industrial sectors as the Secretary may  
19       deem appropriate.

20              (2) ANNUAL REPORTS.—The Administrator of  
21       the Energy Information Administration shall include  
22       statistics on energy industry workforce trends in the  
23       annual reports of the Energy Information Adminis-  
24       tration.

1           (3) SPECIAL REPORTS.—The Secretary shall re-  
2       port to the appropriate committees of Congress  
3       whenever the Secretary determines that significant  
4       shortfalls of technical personnel in one or more en-  
5       ergy industry segments are forecast or have oc-  
6       curred.

7       (b) TRAINEESHIP GRANTS FOR TECHNICALLY  
8 SKILLED PERSONNEL.—

9           (1) GRANT PROGRAMS.—The Secretary shall es-  
10      tablish grant programs in the appropriate offices of  
11      the Department to enhance training of technically  
12      skilled personnel for which a shortfall is determined  
13      under subsection (a).

14          (2) ELIGIBLE INSTITUTIONS.—As determined  
15      by the Secretary to be appropriate to the particular  
16      workforce shortfall, the Secretary shall make grants  
17      under paragraph (1) to—

18              (A) an institution of higher education;

19              (B) a postsecondary educational institution  
20          providing vocational and technical education  
21          (within the meaning given those terms in sec-  
22          tion 3 of the Carl D. Perkins Vocational and  
23          Technical Education Act of 1998 (20 U.S.C.  
24          2302));

1 (C) appropriate agencies of State, local, or  
2 tribal governments; or

3 (D) joint labor and management training  
4 organizations with state or federally recognized  
5 apprenticeship programs and other employee-  
6 based training organizations as the Secretary  
7 considers appropriate.

8 (c) DEFINITION.—For purposes of this section, the  
9 term “skilled technical personnel” means journey and ap-  
10 prentice level workers who are enrolled in or have com-  
11 pleted a state or federally recognized apprenticeship pro-  
12 gram and other skilled workers in energy technology in-  
13 dustries.

14 (d) AUTHORIZATION OF APPROPRIATIONS.—From  
15 amounts authorized under section 1241(c), there are au-  
16 thorized to be appropriated to the Secretary for activities  
17 under this section such sums as may be necessary for each  
18 fiscal year.

19 **SEC. 1502. POSTDOCTORAL AND SENIOR RESEARCH FEL-**  
20 **LOWSHIPS IN ENERGY RESEARCH.**

21 (a) POSTDOCTORAL FELLOWSHIPS.—The Secretary  
22 shall establish a program of fellowships to encourage out-  
23 standing young scientists and engineers to pursue  
24 postdoctoral research appointments in energy research  
25 and development at institutions of higher education of

1 their choice. In establishing a program under this sub-  
2 section, the Secretary may enter into appropriate arrange-  
3 ments with the National Academy of Sciences to help ad-  
4 minister the program.

5 (b) DISTINGUISHED SENIOR RESEARCH FELLOW-  
6 SHIPS.—The Secretary shall establish a program of fellow-  
7 ships to allow outstanding senior researchers in energy re-  
8 search and development and their research groups to ex-  
9 plore research and development topics of their choosing  
10 for a fixed period of time. Awards under this program  
11 shall be made on the basis of past scientific or technical  
12 accomplishment and promise for continued accomplish-  
13 ment during the period of support, which shall not be less  
14 than 3 years.

15 (c) AUTHORIZATION OF APPROPRIATIONS.—From  
16 amounts authorized under section 1241(c), there are au-  
17 thorized to be appropriated to the Secretary for activities  
18 under this section such sums as may be necessary for each  
19 fiscal year.

20 **SEC. 1503. TRAINING GUIDELINES FOR ELECTRIC ENERGY**  
21 **INDUSTRY PERSONNEL.**

22 (a) MODEL GUIDELINES.—The Secretary shall, in co-  
23 operation with electric generation, transmission, and dis-  
24 tribution companies and recognized representatives of em-  
25 ployees of those entities, develop model employee training

1 guidelines to support electric supply system reliability and  
2 safety.

3 (b) CONTENT OF GUIDELINES.—The guidelines  
4 under this section shall include—

5 (1) requirements for worker training, com-  
6 petency, and certification, developed using criteria  
7 set forth by the Utility Industry Group recognized  
8 by the National Skill Standards Board; and

9 (2) consolidation of existing guidelines on the  
10 construction, operation, maintenance, and inspection  
11 of electric supply generation, transmission and dis-  
12 tribution facilities such as those established by the  
13 National Electric Safety Code and other industry  
14 consensus standards.

15 **SEC. 1504. NATIONAL CENTER ON ENERGY MANAGEMENT**  
16 **AND BUILDING TECHNOLOGIES.**

17 The Secretary shall establish a National Center on  
18 Energy Management and Building Technologies, to carry  
19 out research, education, and training activities to facilitate  
20 the improvement of energy efficiency and indoor air qual-  
21 ity in industrial, commercial and residential buildings. The  
22 National Center shall be established in cooperation with—

23 (1) recognized representatives of employees in  
24 the heating, ventilation, and air conditioning indus-  
25 try;

1           (2) contractors that install and maintain heat-  
2       ing, ventilation and air conditioning systems and  
3       equipment;

4           (3) manufacturers of heating, ventilation and  
5       air-conditioning systems and equipment;

6           (4) representatives of the advanced building en-  
7       velope industry, including design, windows, lighting,  
8       and insulation industries; and

9           (5) other entities as appropriate.

10 **SEC. 1505. IMPROVED ACCESS TO ENERGY-RELATED SCI-**  
11 **ENTIFIC AND TECHNICAL CAREERS.**

12       (a) DEPARTMENT OF ENERGY SCIENCE EDUCATION  
13 PROGRAMS.—Section 3164 of the Department of Energy  
14 Science Education Enhancement Act (42 U.S.C. 7381a)  
15 is amended by adding at the end the following:

16       “(c) PROGRAMS FOR WOMEN AND MINORITY STU-  
17 DENTS.—In carrying out a program under subsection (a),  
18 the Secretary shall give priority to activities that are de-  
19 signed to encourage women and minority students to pur-  
20 sue scientific and technical careers.”.

21       (b) PARTNERSHIPS WITH HISTORICALLY BLACK  
22 COLLEGES AND UNIVERSITIES, HISPANIC-SERVICING IN-  
23 STITUTIONS, AND TRIBAL COLLEGES.—The Department  
24 of Energy Science Education Enhancement Act (42  
25 U.S.C. 7381 et seq.) is amended—



1           (1) by redesignating sections 3167 and 3168 as  
2           sections 3168 and 3169, respectively; and

3           (2) by inserting after section 3166 the fol-  
4           lowing:

5   **“SEC. 3167. PARTNERSHIPS WITH HISTORICALLY BLACK**  
6               **COLLEGES AND UNIVERSITIES, HISPANIC-**  
7               **SERVING INSTITUTIONS, AND TRIBAL COL-**  
8               **LEGES.**

9           “(a) DEFINITIONS.—In this section:

10           “(1) HISPANIC-SERVING INSTITUTION.—The  
11           term ‘Hispanic-serving institution’ has the meaning  
12           given the term in section 502(a) of the Higher Edu-  
13           cation Act of 1965 (20 U.S.C. 1101a(a)).

14           “(2) HISTORICALLY BLACK COLLEGE OR UNI-  
15           VERSITY.—The term ‘historically Black college or  
16           university’ has the meaning given the term ‘part B  
17           institution’ in section 322 of the Higher Education  
18           Act of 1965 (20 U.S.C. 1061).

19           “(3) NATIONAL LABORATORY.—The term ‘Na-  
20           tional Laboratory’ has the meaning given the term  
21           in section 1203 of the Energy Science and Tech-  
22           nology Enhancement Act of 2002.

23           “(4) SCIENCE FACILITY.—The term ‘science fa-  
24           cility’ has the meaning given the term ‘single-pur-

pose research facility’ in section 1401 of the Energy  
Science and Technology Enhancement Act of 2002.

“(5) TRIBAL COLLEGE.—The term ‘tribal college has the meaning given the term ‘tribally controlled college or university’ in section 2(a) of the Tribally Controlled College or University Assistance Act of 1978 (25 U.S.C. 1801(a)).

“(b) EDUCATION PARTNERSHIP.—

“(1) IN GENERAL.—The Secretary shall direct the Director of each National Laboratory, and may direct the head of any science facility, to increase the participation of historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges in activities that increase the capacity of the historically Black colleges or universities, Hispanic-serving institutions, or tribal colleges to train personnel in science or engineering.

“(2) ACTIVITIES.—An activity under paragraph (1) may include—

“(A) collaborative research;

“(B) a transfer of equipment;

“(C) training of personnel at a National Laboratory or science facility; and

“(D) a mentoring activity by personnel at a National Laboratory or science facility.

1       “(c) REPORT.—Not later than 2 years after the date  
 2 of enactment of this section, the Secretary shall submit  
 3 to the Committee on Science of the House of Representa-  
 4 tives and the Committee on Energy and Natural Re-  
 5 sources of the Senate a report on the activities carried  
 6 out under this section.”.

7       **DIVISION F—TECHNOLOGY**  
 8       **ASSESSMENT AND STUDIES**  
 9       **TITLE XVI—TECHNOLOGY**  
 10       **ASSESSMENT**

11       **SEC. 1601. NATIONAL SCIENCE AND TECHNOLOGY ASSESS-**  
 12       **MENT SERVICE.**

13       The National Science and Technology Policy, Organi-  
 14 zation, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.)  
 15 is amended by adding at the end the following:

16       **“TITLE VII—NATIONAL SCIENCE**  
 17       **AND TECHNOLOGY ASSESS-**  
 18       **MENT SERVICE**

19       **“SEC. 701. ESTABLISHMENT.**

20       “‘There is hereby created a Science and Technology  
 21 Assessment Service (hereinafter referred to as the ‘Serv-  
 22 ice’), which shall be within and responsible to the legisla-  
 23 tive branch of the Government.

1   **“SEC. 702. COMPOSITION.**

2           “The Service shall consist of a Science and Tech-  
3 nology Board (hereinafter referred to as the ‘Board’)  
4 which shall formulate and promulgate the policies of the  
5 Service, and a Director who shall carry out such policies  
6 and administer the operations of the Service.

7   **“SEC. 703. FUNCTIONS AND DUTIES.**

8           “The Service shall coordinate and develop informa-  
9 tion for Congress relating to the uses and application of  
10 technology to address current national science and tech-  
11 nology policy issues. In developing such technical assess-  
12 ments for Congress, the Service shall utilize, to the extent  
13 practicable, experts selected in coordination with the Na-  
14 tional Research Council.

15   **“SEC. 704. INITIATION OF ACTIVITIES.**

16           “Science and technology assessment activities under-  
17 taken by the Service may be initiated upon the request  
18 of—

19                   “(1) the Chairman of any standing, special, or  
20           select committee of either House of the Congress, or  
21           of any joint committee of the Congress, acting for  
22           himself or at the request of the ranking minority  
23           member or a majority of the committee members;

24                   “(2) the Board; or

25                   “(3) the Director.

1   **“SEC. 705. ADMINISTRATION AND SUPPORT.**

2           “The Director of the Science and Technology Assess-  
3   ment Service shall be appointed by the Board and shall  
4   serve for a term of 6 years unless sooner removed by the  
5   Board. The Director shall receive basic pay at the rate  
6   provided for level III of the Executive Schedule under sec-  
7   tion 5314 of title 5, United States Code. The Director  
8   shall contract for administrative support from the Library  
9   of Congress.

10   **“SEC. 706. AUTHORITY.**

11           “The Service shall have the authority, within the lim-  
12   its of available appropriations, to do all things necessary  
13   to carry out the provisions of this section, including, but  
14   without being limited to, the authority to—

15           “(1) make full use of competent personnel and  
16           organizations outside the Office, public or private,  
17           and form special ad hoc task forces or make other  
18           arrangements when appropriate;

19           “(2) enter into contracts or other arrangements  
20           as may be necessary for the conduct of the work of  
21           the Office with any agency or instrumentality of the  
22           United States, with any State, territory, or posses-  
23           sion or any political subdivision thereof, or with any  
24           person, firm, association, corporation, or educational  
25           institution, with or without reimbursement, without

1 performance or other bonds, and without regard to  
2 section 3709 of the Revised Statutes (41 U.S.C. 51);

3 “(3) accept and utilize the services of voluntary  
4 and uncompensated personnel necessary for the con-  
5 duct of the work of the Service and provide trans-  
6 portation and subsistence as authorized by section  
7 5703 of title 5, United States Code, for persons  
8 serving without compensation; and

9 “(4) prescribe such rules and regulations as it  
10 deems necessary governing the operation and organi-  
11 zation of the Service.

12 **“SEC. 707. BOARD.**

13 “The Board shall consist of 13 members as follows—

14 “(1) 6 Members of the Senate, appointed by the  
15 President pro tempore of the Senate, 3 from the ma-  
16 jority party and 3 from the minority party;

17 “(2) 6 Members of the House or Representa-  
18 tives appointed by the Speaker of the House of Rep-  
19 resentatives, 3 from the majority party and 3 from  
20 the minority party; and

21 “(3) the Director, who shall not be a voting  
22 member.

23 **“SEC. 708. REPORT TO CONGRESS.**

24 “The Service shall submit to the Congress an annual  
25 report which shall include, but not be limited to, an eval-

1 uation of technology assessment techniques and identifica-  
2 tion, insofar as may be feasible, of technological areas and  
3 programs requiring future analysis. The annual report  
4 shall be submitted not later than March 15 of each year.

5 **“SEC. 709. AUTHORIZATION OF APPROPRIATIONS.**

6 “There are authorized to be appropriated to the Serv-  
7 ice such sums as are necessary to fulfill the requirements  
8 of this title.”.

9 **TITLE XVII—STUDIES**

10 **SEC. 1701. REGULATORY REVIEWS.**

11 (a) REGULATORY REVIEWS.—Not later than one year  
12 after the date of enactment of this section and every five  
13 years thereafter, each Federal agency shall review relevant  
14 regulations and standards to identify—

15 (1) existing regulations and standards that act  
16 as barriers to—

17 (A) market entry for emerging energy  
18 technologies (including fuel cells, combined heat  
19 and power, distributed power generation, and  
20 small-scale renewable energy), and

21 (B) market development and expansion for  
22 existing energy technologies (including com-  
23 bined heat and power, small-scale renewable en-  
24 ergy, and energy recovery in industrial proc-  
25 esses), and

1           (2) actions the agency is taking or could take  
2       to—

3           (A) remove barriers to market entry for  
4       emerging energy technologies and to market ex-  
5       pansion for existing technologies,

6           (B) increase energy efficiency and con-  
7       servation, or

8           (C) encourage the use of new and existing  
9       processes to meet energy and environmental  
10      goals.

11      (b) REPORT TO CONGRESS.—Not later than 18  
12      months after the date of enactment of this section, and  
13      every five years thereafter, the Director of the Office of  
14      Science and Technology Policy shall report to the Con-  
15      gress on the results of the agency reviews conducted under  
16      subsection (a).

17      (c) CONTENTS OF THE REPORT.—The report shall—

18           (1) identify all regulatory barriers to—

19           (A) the development and commercialization  
20       of emerging energy technologies and processes,  
21       and

22           (B) the further development and expansion  
23       of existing energy conservation technologies and  
24       processes,



1           (2) actions taken, or proposed to be taken, to  
2       remove such barriers, and

3           (3) recommendations for changes in laws or  
4       regulations that may be needed to—

5           (A) expedite the siting and development of  
6       energy production and distribution facilities,

7           (B) encourage the adoption of energy effi-  
8       ciency and process improvements,

9           (C) facilitate the expanded use of existing  
10      energy conservation technologies, and

11          (D) reduce the environmental impacts of  
12      energy facilities and processes through trans-  
13      parent and flexible compliance methods.

14   **SEC. 1702. ASSESSMENT OF DEPENDENCE OF HAWAII ON**  
15                           **OIL.**

16      (a) STUDY.—Not later than 60 days after the enact-  
17      ment of this Act, the Secretary of Energy shall initiate  
18      a study that assesses the economic risk posed by the de-  
19      pendence of Hawaii on oil as the principal source of en-  
20      ergy.

21      (b) SCOPE OF THE STUDY.—The Secretary shall as-  
22      sess—

23           (1) the short- and long-term threats to the  
24      economy of Hawaii posed by insecure supply and  
25      volatile prices;

1           (2) the impact on availability and cost of re-  
2       fined petroleum products if oil-fired electric genera-  
3       tion is displaced by other sources;

4           (3) the feasibility of increasing the contribution  
5       of renewable sources to the overall energy require-  
6       ments of Hawaii; and

7           (4) the feasibility of using liquid natural gas as  
8       a source of energy to supplement oil.

9       (c) REPORT.—Not later than 300 days after the date  
10   of enactment of this section, the Secretary shall prepare,  
11   in consultation with appropriate agencies of the State of  
12   Hawaii, industry representatives, and citizen groups, and  
13   shall submit to Congress a report detailing the Secretary's  
14   findings, conclusions, and recommendations. The report  
15   shall include—

16           (1) a detailed analysis of the availability, eco-  
17       nomics, infrastructure needs, and recommendations  
18       to increase the contribution of renewable energy  
19       sources to the overall energy requirements of Ha-  
20       waii; and

21           (2) a detailed analysis of the use of liquid nat-  
22       ural gas, including—

23                   (A) the availability of supply,

24                   (B) economics,

1 (C) environmental and safety consider-  
2 ations,

3 (D) technical limitations,

4 (E) infrastructure and transportation re-  
5 quirements,

6 (F) siting and facility configurations, in-  
7 cluding—

8 (i) onshore and offshore alternatives,  
9 and

10 (ii) environmental and safety consider-  
11 ations of both onshore and offshore alter-  
12 natives.

13 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
14 are authorized to be appropriated to the Secretary of En-  
15 ergy such sums as may be necessary to carry out the pur-  
16 poses of this section.

17 **SEC. 1703. STUDY OF SITING AN ELECTRIC TRANSMISSION**  
18 **SYSTEM ON AMTRAK RIGHT-OF-WAY.**

19 (a) STUDY.—The Secretary of Energy shall contract  
20 with Amtrak to conduct a study of the feasibility of build-  
21 ing and operating a new electric transmission system on  
22 the Amtrak right-of-way in the Northeast Corridor.

23 (b) SCOPE OF THE STUDY.—The study shall focus  
24 on siting the new system on the Amtrak right-of-way with-  
25 in the Northeastern Corridor between Washington, D.C.,

1 and New Rochelle, New York, including the Amtrak right-  
2 of-way between Philadelphia, Pennsylvania and Harris-  
3 burg, Pennsylvania.

4 (c) CONTENTS OF THE STUDY.—The study shall con-  
5 sider—

6 (1) alternative geographic configuration of a  
7 new electronic transmission system on the Amtrak  
8 right-of-way;

9 (2) alternative technologies for the system;

10 (3) the estimated costs of building and oper-  
11 ating each alternative;

12 (4) alternative means of financing the system;

13 (5) the environmental risks and benefits of  
14 building and operating each alternative as well as  
15 environmental risks and benefits of building and op-  
16 erating the system on the Northeast Corridor rather  
17 than at other locations;

18 (6) engineering and technological obstacles to  
19 building and operating each alternative; and

20 (7) the extent to which each alternative would  
21 enhance the reliability of the electric transmission  
22 grid and enhance competition in the sale of electric  
23 energy at wholesale within the Northeast Corridor.

24 (d) RECOMMENDATIONS.—The study shall rec-  
25 ommend the optimal geographic configuration, the optimal

1 technology, the optimal engineering design, and the opti-  
 2 mal means of financing for the new system from among  
 3 the alternatives considered.

4 (e) REPORT.—The Secretary of Energy shall submit  
 5 the completed study to the Committee on Energy and Nat-  
 6 ural Resources of the United States Senate and the Com-  
 7 mittee on Energy and Commerce of the House of Rep-  
 8 resentatives not later than 270 days after the date of en-  
 9 actment of this section.

10 (f) DEFINITIONS.—For purposes of this section—

11 (1) the term “Amtrak” means the National  
 12 Railroad Passenger Corporation established under  
 13 chapter 243 of title 49, United States Code; and

14 (2) the term “Northeast Corridor” shall have  
 15 the meaning given such term under section 24102(7)  
 16 of title 49, United States Code.

17 **DIVISION G—ENERGY**  
 18 **INFRASTRUCTURE SECURITY**  
 19 **TITLE XVIII—CRITICAL ENERGY**  
 20 **INFRASTRUCTURE**  
 21 **Subtitle A—Department of Energy**  
 22 **Programs**

23 **SEC. 1801. DEFINITIONS.**

24 In this title:

25 (1) CRITICAL ENERGY INFRASTRUCTURE.—

1 (A) IN GENERAL.—The term “critical en-  
2 ergy infrastructure” means a physical or cyber-  
3 based system or service for—

4 (i) the generation, transmission or  
5 distribution of electric energy; or

6 (ii) the production, refining, or stor-  
7 age of petroleum, natural gas, or petro-  
8 leum product—

9 the incapacity or destruction of which would  
10 have a debilitating impact on the defense or  
11 economic security of the United States.

12 (B) EXCLUSION.—The term shall not in-  
13 clude a facility that is licensed by the Nuclear  
14 Regulatory Commission under section 103 or  
15 104b. of the Atomic Energy Act of 1954 (42  
16 U.S.C. 2133 and 2134(b)).

17 (2) DEPARTMENT; NATIONAL LABORATORY;  
18 SECRETARY.—The terms “Department”, “National  
19 Laboratory”, and “Secretary” have the meaning  
20 given such terms in section 1203.

21 **SEC. 1802. ROLE OF THE DEPARTMENT OF ENERGY.**

22 Section 102 of the Department of Energy Organiza-  
23 tion Act (42 U.S.C. 7112) is amended by adding at the  
24 end the following:

1           “(20) To ensure the safety, reliability, and se-  
2           curity of the nation’s energy infrastructure, and to  
3           respond to any threat to or disruption of such infra-  
4           structure, through activities including—

5                   “(A) research and development;

6                   “(B) financial assistance, technical assist-  
7           ance, and cooperative activities with States, in-  
8           dustry, and other interested parties; and

9                   “(C) education and public outreach activi-  
10          ties.”.

11 **SEC. 1803. CRITICAL ENERGY INFRASTRUCTURE PRO-**  
12 **GRAMS.**

13          (a) PROGRAMS.—In addition to the authorities other-  
14          wise provided by law (including section 1261), the Sec-  
15          retary is authorized to establish programs of financial,  
16          technical, or administrative assistance to—

17                  (1) enhance the security of critical energy infra-  
18          structure in the United States;

19                  (2) develop and disseminate, in cooperation  
20          with industry, best practices for critical energy infra-  
21          structure assurance; and

22                  (3) protect against, mitigate the effect of, and  
23          improve the ability to recover from disruptive inci-  
24          dents affecting critical energy infrastructure.

1 (b) REQUIREMENTS.—A program established under  
2 this section shall—

3 (1) be undertaken in consultation with the advi-  
4 sory committee established under section 1804;

5 (2) have available to it the scientific and tech-  
6 nical resources of the Department, including re-  
7 sources at a National Laboratory; and

8 (3) be consistent with any overall Federal plan  
9 for national infrastructure security developed by the  
10 President or his designee.

11 **SEC. 1804. ADVISORY COMMITTEE ON ENERGY INFRA-**  
12 **STRUCTURE SECURITY.**

13 (a) ESTABLISHMENT.—The Secretary shall establish  
14 an advisory committee, or utilize an existing advisory com-  
15 mittee within the Department, to advise the Secretary on  
16 policies and programs related to the security of U.S. en-  
17 ergy infrastructure.

18 (b) BALANCED MEMBERSHIP.—The Secretary shall  
19 ensure that the advisory committee established or utilized  
20 under subsection (a) has a membership with an appro-  
21 priate balance among the various interests related to en-  
22 ergy infrastructure security, including—

23 (1) scientific and technical experts;

24 (2) industrial managers;

25 (3) worker representatives;



- 1           (4) insurance companies or organizations;
- 2           (5) environmental organizations;
- 3           (6) representatives of State, local, and tribal
- 4 governments; and
- 5           (7) such other interests as the Secretary may
- 6 deem appropriate.

7       (c) **EXPENSES.**—Members of the advisory committee  
8 established or utilized under subsection (a) shall serve  
9 without compensation, and shall be allowed travel ex-  
10 penses, including per diem in lieu of subsistence, at rates  
11 authorized for an employee of an agency under subchapter  
12 I of chapter 57 of title 5, United States Code, while away  
13 from the home or regular place of business of the member  
14 in the performance of the duties of the committee.

15 **SEC. 1805. BEST PRACTICES AND STANDARDS FOR ENERGY**  
16 **INFRASTRUCTURE SECURITY.**

17       The Secretary, in consultation with the advisory com-  
18 mittee under section 1804, shall enter into appropriate ar-  
19 rangements with one or more standard-setting organiza-  
20 tions, or similar organizations, to assist the development  
21 of industry best practices and standards for security re-  
22 lated to protecting critical energy infrastructure.

1       **Subtitle B—Department of the**  
2                   **Interior Programs**

3   **SEC. 1811. OUTER CONTINENTAL SHELF ENERGY INFRA-**  
4                   **STRUCTURE SECURITY.**

5       (a) DEFINITIONS.—In this section:

6               (1) APPROVED STATE PLAN.—The term “ap-  
7       proved State plan” means a State plan approved by  
8       the Secretary under subsection (c)(3).

9               (2) COASTLINE.—The term “coastline” has the  
10      same meaning as the term “coast line” as defined  
11      in subsection 2(c) of the Submerged Lands Act (43  
12      U.S.C. 1301(c)).

13              (3) CRITICAL OCS ENERGY INFRASTRUCTURE  
14      FACILITY.—The term “OCS critical energy infra-  
15      structure facility” means—

16              (A) a facility located in an OCS Produc-  
17      tion State or in the waters of such state related  
18      to the production of oil or gas on the Outer  
19      Continental Shelf; or

20              (B) a related facility located in an OCS  
21      Production State or in the waters of such state  
22      that carries out a public service, transportation,  
23      or infrastructure activity critical to the oper-  
24      ation of an Outer Continental Shelf energy in-

1           frastructure facility, as determined by the Sec-  
2           retary.

3           (4) DISTANCE.—The term “distance” means  
4           the minimum great circle distance, measured in stat-  
5           ute miles.

6           (5) LEASED TRACT.—

7                 (A) IN GENERAL.—The term “leased  
8           tract” means a tract that—

9                         (i) is subject to a lease under section  
10                        6 or 8 of the Outer Continental Shelf  
11                        Lands Act (43 U.S.C. 1335, 1337) for the  
12                        purpose of drilling for, developing, and  
13                        producing oil or natural gas resources; and

14                       (ii) consists of a block, a portion of a  
15                        block, a combination of blocks or portions  
16                        of blocks, or a combination of portions of  
17                        blocks, as—

18                                 (I) specified in the lease; and

19                                 (II) depicted on an Outer Conti-  
20                                nental Shelf official protraction dia-  
21                                gram.

22           (B) EXCLUSION.—The term “leased tract”  
23           does not include a tract described in subpara-  
24           graph (A) that is located in a geographic area  
25           subject to a leasing moratorium on January 1,

1           2001, unless the lease was in production on  
2           that date.

3           (6) OCS POLITICAL SUBDIVISION.—The term  
4           “OCS political subdivision” means a county, parish,  
5           borough or any equivalent subdivision of an OCS  
6           Production State all or part of which subdivision lies  
7           within the coastal zone (as defined in section 304(l)  
8           of the Coastal Zone Management Act of 1972 (16  
9           U.S.C. 1453(l)).

10          (7) OCS PRODUCTION STATE.—The term “OCS  
11          Production State” means the State of—

- 12                   (A) Alaska;
- 13                   (B) Alabama;
- 14                   (C) California;
- 15                   (D) Florida;
- 16                   (E) Louisiana;
- 17                   (F) Mississippi; or
- 18                   (G) Texas.

19          (8) PRODUCTION.—The term “production” has  
20          the meaning given the term in section 2 of the Outer  
21          Continental Shelf Lands Act (43 U.S.C. 1331).

22          (9) PROGRAM.—The term “program” means  
23          the Outer Continental Shelf Energy Infrastructure  
24          Security Program established under subsection (b).

1           (10) QUALIFIED OUTER CONTINENTAL SHELF  
2 REVENUES.—The term “qualified Outer Continental  
3 Shelf revenues” means all amounts received by the  
4 United States from each leased tract or portion of  
5 a leased tract lying seaward of the zone defined and  
6 governed by section 8(g) of the Outer Continental  
7 Shelf Lands Act (43 U.S.C. 1331 et seq.), or lying  
8 within such zone but to which section 8(g) does not  
9 apply, the geographic center of which lies within a  
10 distance of 200 miles from any part of the coastline  
11 of any State, including bonus bids, rents, royalties  
12 (including payments for royalties taken in kind and  
13 sold), net profit share payments, and related late  
14 payment interest. Such term does not include any  
15 revenues from a leased tract or portion of a leased  
16 tract that is included within any area of the Outer  
17 Continental Shelf where a moratorium on new leasing  
18 was in effect as of January 1, 2001, unless the  
19 lease was issued prior to the establishment of the  
20 moratorium and was in production on January 1,  
21 2001.

22           (11) SECRETARY.—The term “Secretary”  
23 means the Secretary of the Interior.

24           (12) STATE PLAN.—The term “State plan”  
25 means a State plan described in subsection (b).

1       (b) ESTABLISHMENT.—The Secretary shall establish  
2 a program, to be known as the “Outer Continental Shelf  
3 Energy Infrastructure Security Program,” under which  
4 the Secretary shall provide funds to OCS Production  
5 States to implement approved State plans to provide secu-  
6 rity against hostile and natural threats to critical OCS en-  
7 ergy infrastructure facilities and support of any necessary  
8 public service or transportation activities that are needed  
9 to maintain the safety and operation of critical energy in-  
10 frastructure activities. For purposes of this program, res-  
11 toration of any coastal wetland shall be considered to be  
12 an activity that secures critical OCS energy infrastructure  
13 facilities from a natural threat.

14       (c) STATE PLANS.—

15           (1) INITIAL PLAN.—Not later than 180 days  
16 after the date of enactment of this Act, to be eligible  
17 to receive funds under the program, the Governor of  
18 an OCS Production State shall submit to the Sec-  
19 retary a plan to provide security against hostile and  
20 natural threats to critical energy infrastructure fa-  
21 cilities in the OCS Production State and to support  
22 any of the necessary public service or transportation  
23 activities that are needed to maintain the safety and  
24 operation of critical energy infrastructure facilities.  
25 Such plan shall include—

1 (A) the name of the State agency that will  
2 have the authority to represent and act for the  
3 State in dealing with the Secretary for purposes  
4 of this section;

5 (B) a program for the implementation of  
6 the plan which describes how the amounts pro-  
7 vided under this section will be used;

8 (C) a contact for each OCS political sub-  
9 division and description of how such political  
10 subdivisions will use amounts provided under  
11 this section, including a certification by the  
12 Governor that such uses are consistent with the  
13 requirements of this section; and

14 (D) measures for taking into account other  
15 relevant Federal resources and programs.

16 (2) ANNUAL REVIEWS.—Not later than 1 year  
17 after the date of submission of the plan and annu-  
18 ally thereafter, the Governor of an OCS Production  
19 State shall—

20 (A) review the approved State plan; and

21 (B) submit to the Secretary any revised  
22 State plan resulting from the review.

23 (3) APPROVAL OF PLANS.—

24 (A) IN GENERAL.—In consultation with  
25 appropriate Federal security officials and the

1 Secretaries of Commerce and Energy, the Sec-  
2 retary shall—

3 (i) approve each State plan; or

4 (ii) recommend changes to the State  
5 plan.

6 (B) RESUBMISSION OF STATE PLANS.—If  
7 the Secretary recommends changes to a State  
8 plan under subparagraph (A)(ii), the Governor  
9 of the OCS Production State may resubmit a  
10 revised State plan to the Secretary for approval.

11 (4) AVAILABILITY OF PLANS.—The Secretary  
12 shall provide to Congress a copy of each approved  
13 State plan.

14 (5) CONSULTATION AND PUBLIC COMMENT.—

15 (A) CONSULTATION.—The Governor of an  
16 OCS Production State shall develop the State  
17 plan in consultation with Federal, State, and  
18 local law enforcement and public safety offi-  
19 cials, industry, Indian tribes, the scientific com-  
20 munity, and other persons as appropriate.

21 (B) PUBLIC COMMENT.—The Governor of  
22 an OCS Production State may solicit public  
23 comments on the State plan to the extent that  
24 the Governor determines to be appropriate.



1       (d) ALLOCATION OF AMOUNTS BY THE SEC-  
2 RETARY.—The Secretary shall allocate the amounts made  
3 available for the purposes of carrying out the program  
4 provided for by this section among OCS Production States  
5 as follows:

6           (1) 25 percent of the amounts shall be divided  
7       equally among OCS Production States; and

8           (2) 75 percent of the amounts shall be divided  
9       among OCS Production States on the basis of the  
10      proximity of each OCS Production State to offshore  
11      locations at which oil and gas are being produced.

12      (e) CALCULATION.—The amount for each OCS Pro-  
13 duction State under paragraph (d)(2) shall be calculated  
14 based on the ratio of qualified OCS revenues generated  
15 off the coastline of the OCS Production State to the quali-  
16 fied OCS revenues generated off the coastlines of all OCS  
17 Production States for the prior five-year period. Where  
18 there is more than one OCS Production State within 200  
19 miles of a leased tract, the amount of each OCS Produc-  
20 tion State's payment under paragraph (d)(2) for such  
21 leased tract shall be inversely proportional to the distance  
22 between the nearest point on the coastline of such State  
23 and the geographic center of each leased tract or portion  
24 of the leased tract (to the nearest whole mile) that is with-  
25 in 200 miles of that coastline, as determined by the Sec-

1   retary. A leased tract or portion of a leased tract shall  
2   be excluded if the tract or portion is located in a geo-  
3   graphic area where a moratorium on new leasing was in  
4   effect on January 1, 2001, unless the lease was issued  
5   prior to the establishment of the moratorium and was in  
6   production on January 1, 2001.

7       (f) PAYMENTS TO OCS POLITICAL SUBDIVISIONS.—  
8   Thirty-five percent of each OCS Production State's allo-  
9   cable share as determined under subsection (e) shall be  
10  paid directly to the OCS political subdivisions by the Sec-  
11  retary based on the following formula:

12           (1) 25 percent shall be allocated based on the  
13       ratio of such OCS political subdivision's population  
14       to the population of all OCS political subdivisions in  
15       the OCS Production State.

16           (2) 25 percent shall be allocated based on the  
17       ratio of such OCS political subdivision's coastline  
18       miles to the coastline miles of all OCS political sub-  
19       divisions in the OCS Production State. For purposes  
20       of this subsection, those OCS political subdivisions  
21       without coastlines shall be considered to have a  
22       coastline that is the average length of the coastlines  
23       of all political subdivisions in the state.

24           (3) 50 percent shall be allocated based on the  
25       relative distance of such OCS political subdivision

1 from any leased tract used to calculate that OCS  
2 Production State's allocation using ratios that are  
3 inversely proportional to the distance between the  
4 point in the coastal political subdivision closest to  
5 the geographic center of each leased tract or portion,  
6 as determined by the Secretary. For purposes of the  
7 calculations under this subparagraph, a leased tract  
8 or portion of a leased tract shall be excluded if the  
9 leased tract or portion is located in a geographic  
10 area where a moratorium on new leasing was in ef-  
11 fect on January 1, 2001, unless the lease was issued  
12 prior to the establishment of the moratorium and  
13 was in production on January 1, 2001.

14 (g) FAILURE TO HAVE PLAN APPROVED.—Any  
15 amount allocated to an OCS Production State or OCS po-  
16 litical subdivision but not disbursed because of a failure  
17 to have an approved Plan under this section shall be allo-  
18 cated equally by the Secretary among all other OCS Pro-  
19 duction States in a manner consistent with this subsection  
20 except that the Secretary shall hold in escrow such amount  
21 until the final resolution of any appeal regarding the dis-  
22 approval of a plan submitted under this section. The Sec-  
23 retary may waive the provisions of this paragraph and  
24 hold an OCS Production State's allocable share in escrow

1 if the Secretary determines that such State is making a  
2 good faith effort to develop and submit, or update, a Plan.

3 (h) USE OF AMOUNTS ALLOCATED BY THE SEC-  
4 RETARY.—

5 (1) IN GENERAL.—Amounts allocated by the  
6 Secretary under subsection (d) may be used only in  
7 accordance with a plan approved pursuant to sub-  
8 section (c) for—

9 (A) activities to secure critical OCS energy  
10 infrastructure facilities from human or natural  
11 threats; and

12 (B) support of any necessary public service  
13 or transportation activities that are needed to  
14 maintain the safety and operation of critical  
15 OCS energy infrastructure facilities.

16 (2) RESTORATION OF COASTAL WETLAND.—For  
17 the purpose of subparagraph (1)(A), restoration of  
18 any coastal wetland shall be considered to be an ac-  
19 tivity that secures critical OCS energy infrastructure  
20 facilities from a natural threat.

21 (i) FAILURE TO HAVE USE.—Any amount allocated  
22 to an OCS political subdivision but not disbursed because  
23 of a failure to have a qualifying use as described in sub-  
24 section (h) shall be allocated by the Secretary to the OCS  
25 Production State in which the OCS political subdivision

1 is located except that the Secretary shall hold in escrow  
2 such amount until the final resolution of any appeal re-  
3 garding the use of the funds.

4 (j) COMPLIANCE WITH AUTHORIZED USES.—If the  
5 Secretary determines that any expenditure made by an  
6 OCS Production State or an OCS political subdivision is  
7 not consistent with the uses authorized in subsection (h),  
8 the Secretary shall not disburse any further amounts  
9 under this section to that OCS Production State or OCS  
10 political subdivision until the amounts used for the incon-  
11 sistent expenditure have been repaid or obligated for au-  
12 thorized uses.

13 (k) RULEMAKING.—The Secretary may promulgate  
14 such rules and regulations as may be necessary to carry  
15 out the purposes of this section, including rules and regu-  
16 lations setting forth an appropriate process for appeals.

17 (l) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are hereby authorized to be appropriated \$450,000,000  
19 for each of the fiscal years 2003 through 2008 to carry  
20 out the purposes of this section.